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ABSTRACT

The data presented in this summary (released in advance of their publication) are derived from four surveys of academic science and engineering (S/E) activities conducted anually by the National Science Foundation's Division of Science Resources Studies, Universities, and Nonprofit Institutions Studies Groups: (1) Survey of Scientific and Engineering Expenditures at Universities and Colleges, fiscal year (FY) 1984 (expenditure survey); (2) Survey of Federal Support to Universities, Colleges, and Selected Nonprofit Institutions, FY 1984 (federal support survey); (3) Survey of Scientific and Engineering Personnel Employed at Universities and Colleges, January 1985 (personnel survey); and Survey of Graduate Science and Engineering Students and Post-doctorates, Fall 1984 (graduate student survey). In expenditures, personnel, and graduate student surveys, data are submitted by institutions of higher education; data on federal obligations to academic institutions are collected directly from the major funding agencies. A brief introduction to the data (which are presented in 29 tables) is included, with information on the higher education universe surveyed as well as information on samples used in the four surveys. (JN)

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EARLY RELEASE OF SUMMARY STATISTICS ON ACADEMIC SCIENCE/ENGINEERING RESOURCES

Prepared by:
Universities and Nonprofit Institutions
Studies Group
Division of Science Resources Studies
National Science Foundation
(202) 634-4673

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December 1985

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SUMMARY STATISTICS ON ACADEMIC SCIENCE/ENGINEERING RESOURCES

The data presented in this summary are being released in advance of their publication, and are derived from four surveys of academic science/engineering activities conducted annually by the National Science Foundation's Division of Science Resources Studies, Universities and Nonprofit Institutions Studies Group:

1. Survey of Scientific and Engineering Expenditures at Universities and Colleges, FY 1984 (the Expenditures Survey): Tables 1-7.

2. Survey of Federal Support to Universities, Colleges, and Selected Nonprofit Institutions, FY 1984 (the Federal Support Survey): Tables 8-13.

3. Survey of Scientific and Engineering Personnel Employed at Universities and Colleges, January 1985 (the Personnel Survey): Tables 14-20.

4. Survey of Graduate Science and Engineering Students and Post-doctorates, Fall 1984 (the Graduate Student Survey): Tables 21-29.

In the Expenditures, Personnel, and Graduate Student Surveys, data are submitted by institutions of higher education; data on Federal obligations to academic institutions are collected directly from the major funding agencies.

The four surveys include different proportions of the higher education universe, depending on the degree of concentration of the variables being examined. Survey coverage is as follows (numbers of institutions shown represent averages for the last eight survey cycles, excluding the 1978/79 cycle when the Expenditures, Personnel, and Graduate Student Surveys were mailed to doctorate-granting institutions only):

1. **Expenditures Survey:** Institutions granting science/engineering graduate degrees and schools with $50,000 or more in separately budgeted R&D expenditures (about 550 institutions and their associated FFRDCs). Data for FY 1984 are based on a sample of 400 institutions.

2. **Federal Support Survey:** All institutions of higher education in the United States (about 2,400 institutions, their system offices, and their associated FFRDCs).

3. **Personnel Survey:** Institutions of higher education with science/engineering programs (about 2,200 institutions and their associated FFRDCs). Data for January 1985 are based on a sample of 1,100 institutions.

4. **Graduate Student Survey:** Institutions granting science/engineering degrees and their affiliated health professional schools (about 600 institutions). Data for Fall 1984 are based on a sample of 400 institutions.

For further information on the academic science/engineering surveys/data availability, please contact NSF staff responsible for each survey system at (202) 634-4673:

Expenditures Survey:	Judy Coakley or Marge Machen
Personnel Survey:	Judy Coakley or Esther F. Gist
Federal Support Survey:	Richard Bennof
Graduate Student Survey:	J.G. Huckenpahler

NOTES

- Data in tables 1-13 cover fiscal years (FYs); data in tables 14-20 are collected as of January in each year; data in tables 21-29 are collected as of Fall in each year.

- During the 1978/79 survey cycle, an attempt was made in the Expenditures, Personnel, and Graduate Student Surveys to collect some data items on a short form mailed to doctorate-granting institutions only. FY 1978 expenditures data, January 1979 personnel data, and Fall 1978 graduate student data are therefore unavailable at the universe level, although an estimate was made for total FY 1978 expenditures at non-doctorate-granting institutions. In addition, no 1978 data are available for those items excluded from the short forms --e.g., capital expenditures, full-time-equivalent scientists and engineers, and support mechanisms of graduate students. These data gaps are indicated on the tables. The Federal Support Survey, however, continued to request data on all institutions receiving funding from the participating agencies.

- Data presented in these tables are assembled from the most recently completed surveys and represent the latest totals available as of November 1985. Since both current-year and prior-year data are regularly reviewed and updated in consultation with agency and institutional respondents, the figures are subject to revision in subsequent years.

- N/A means "not available"; N.E.C. means "not elsewhere classified".

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(DOLLARS IN THOUSANDS)

SOURCE, CHARACTER, AND FIELD	1977	1978 1/	1979	1980	1981	1982	1983	1984
TOTAL	4,066,953	4,624,673	5,361,408	6,060,288	6,818,595	7,287,645	7,781,471	8,472,749
SOURCE OF FUNDS:								
FEDERAL GOVERNMENT	2,726,126	3,058,734	3,595,271	4,096,029	4,561,812	4,752,219	4,956,082	5,386,578
STATE AND LOCAL GOVERNMENTS	373,943	414,389	470,073	491,309	545,736	610,729	622,104	652,818
INDUSTRY	138,807	169,623	194,186	237,025	291,150	333,905	377,762	457,227
INSTITUTIONAL FUNDS	514,275	622,646	728,298	827,338	973,805	1,090,761	1,242,184	1,346,564
ALL OTHER SOURCES	313,802	359,281	373,580	408,587	446,092	500,031	583,339	629,562
CHARACTER OF WORK: 2/								
BASIC RESEARCH	2,799,649	-	3,612,278	4,026,350	4,576,482	4,867,129	5,238,841	5,621,984
APPLIED RESEARCH AND DEVELOPMENT	1,267,304	-	1,749,130	2,033,938	2,242,113	2,420,516	2,542,630	2,850,765
FIELD:								
ENGINEERING, TOTAL 3/	498,473	601,062	768,407	864,897	960,978	1,029,372	1,109,429	1,202,625
AERONAUTICAL AND ASTRONAUTICAL	-	-	-	46,285	45,522	60,541	64,974	66,096
CHEMICAL	-	-	-	67,557	83,213	83,807	90,560	95,941
CIVIL	-	-	-	88,644	108,236	108,981	109,698	133,134
ELECTRICAL	-	-	-	184,026	193,140	225,446	259,704	291,258
MECHANICAL	-	-	-	146,151	149,196	142,581	149,352	175,547
OTHER, N.E.C.	-	-	-	332,234	381,671	408,016	435,141	440,648
ALL SCIENCES, TOTAL	3,568,480	4,023,611	4,593,001	5,195,391	5,857,617	6,258,273	6,672,042	7,270,124
PHYSICAL SCIENCES	423,457	496,399	601,904	677,386	766,266	826,149	898,843	994,810
ASTRONOMY	32,361	36,782	48,459	58,741	67,391	73,296	74,234	80,429
CHEMISTRY	159,353	183,131	206,421	244,044	285,061	309,889	335,627	370,123
PHYSICS	201,655	235,099	292,033	322,249	357,165	366,511	414,295	469,731
OTHER, N.E.C.	30,088	41,387	54,991	52,352	56,649	76,453	74,687	74,528
ENVIRONMENTAL SCIENCES 3/	319,398	379,391	452,915	509,105	550,301	559,590	619,620	646,962
ATMOSPHERIC	-	-	-	67,460	78,271	85,458	97,675	102,500
EARTH SCIENCES	-	-	-	188,257	190,338	196,409	216,085	223,553
OCEANOGRAPHY	-	-	-	171,681	187,667	197,988	224,252	237,234
OTHER, N.E.C.	-	-	-	81,707	94,025	79,735	81,608	83,675
MATHEMATICAL SCIENCES	52,312	58,756	78,477	78,646	89,078	99,151	105,142	123,592
COMPUTER SCIENCES	55,563	67,422	97,921	114,220	133,100	150,026	177,704	222,208
LIFE SCIENCES	2,258,806	2,538,004	2,832,523	3,216,876	3,673,142	3,977,112	4,211,961	4,589,546
AGRICULTURAL SCIENCES	460,647	521,745	602,485	679,304	773,059	844,722	891,083	920,081
BIOLOGICAL SCIENCES	772,290	808,500	914,806	1,030,205	1,187,930	1,288,605	1,395,508	1,555,540
MEDICAL SCIENCES	950,907	1,128,652	1,237,556	1,414,352	1,599,406	1,721,694	1,797,360	1,973,318
OTHER, N.E.C.	74,962	79,107	77,676	93,015	112,747	122,091	127,510	140,607
PSYCHOLOGY	85,133	89,664	100,531	111,329	128,735	132,969	138,897	146,887
SOCIAL SCIENCES	268,087	277,497	295,138	341,678	372,435	360,844	356,376	369,084
ECONOMICS	72,124	79,129	83,089	90,195	99,749	95,892	97,411	108,340
POLITICAL SCIENCE	32,314	36,571	45,431	55,450	56,695	61,803	56,837	53,783
SOCIOLOGY	61,939	66,900	74,641	88,594	95,039	80,693	78,941	76,101
OTHER, N.E.C.	101,710	94,897	91,977	107,439	120,952	122,456	123,187	130,859
OTHER SCIENCES, N.E.C.	105,724	116,478	133,592	146,151	144,560	152,432	163,499	177,035

1/ ESTIMATED, BASED ON DATA COLLECTED FROM DOCTORATE-GRANTING INSTITUTIONS ONLY.
2/ DATA WERE NOT COLLECTED IN 1978.
3/ DETAIL NOT SEPARATELY AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 2. -- R&D EXPENDITURES AT DOCTORATE-GRANTING INSTITUTIONS BY SOURCE OF FUNDS, CHARACTER OF WORK, AND SCIENCE/ENGINEERING FIELD: FISCAL YEARS 1977-84

(DOLLARS IN THOUSANDS)

SOURCE, CHARACTER, AND FIELD	1977	1978	1979	1980	1981	1982	1983	1984
TOTAL	3,987,888	4,340,256	5,271,643	5,958,867	6,695,996	7,159,254	7,649,290	8,321,159
SOURCE OF FUNDS:								
FEDERAL GOVERNMENT	2,477,469	3,004,930	3,534,215	4,030,009	4,482,252	4,671,543	4,874,726	5,288,167
STATE AND LOCAL GOVERNMENTS	368,869	406,809	461,534	481,354	534,047	595,452	606,546	638,116
INDUSTRY	135,031	166,271	190,733	232,758	284,685	326,984	370,234	446,980
INSTITUTIONAL FUNDS	602,430	610,068	716,069	813,577	958,595	1,074,976	1,223,820	1,331,865
ALL OTHER SOURCES	306,892	352,478	369,092	401,169	436,417	490,299	573,964	616,061
CHARACTER OF WORK: 1/								
BASIC RESEARCH	2,788,813	-	3,561,649	3,965,960	4,501,674	4,783,875	5,150,838	5,524,064
APPLIED RESEARCH AND DEVELOPMENT	1,229,372	-	1,709,994	1,992,907	2,194,322	2,375,379	2,498,452	2,797,095
FIELD:								
ENGINEERING, TOTAL 2/	490,931	591,962	761,142	857,043	952,823	1,021,145	1,099,512	1,184,916
AERONAUTICAL AND ASTRONAUTICAL	-	-	-	45,742	44,919	59,669	64,163	64,151
CHEMICAL	-	-	-	66,876	82,955	83,586	90,342	95,551
CIVIL	-	-	-	86,703	106,115	107,016	107,458	127,900
ELECTRICAL	-	-	-	183,219	191,922	224,447	258,248	288,698
MECHANICAL	-	-	-	145,125	147,730	141,268	147,627	173,384
OTHER, N.E.C.	-	-	-	329,378	379,182	405,159	431,674	435,232
ALL SCIENCES, TOTAL	3,496,954	3,948,294	4,510,501	5,101,824	5,743,173	6,138,109	6,549,778	7,136,243
PHYSICAL SCIENCES	410,642	481,447	585,227	659,047	746,336	804,788	877,689	972,863
ASTRONOMY	32,117	36,505	47,969	58,087	66,746	72,662	73,378	77,402
CHEMISTRY	152,454	175,438	198,788	234,359	272,932	296,640	322,520	358,846
PHYSICS	197,861	230,678	286,738	316,094	350,797	360,044	407,981	462,529
OTHER, N.E.C.	28,210	38,826	51,732	50,507	55,861	75,442	73,810	74,086
ENVIRONMENTAL SCIENCES 2/	309,283	367,337	443,531	496,188	532,947	542,748	600,925	624,969
ATMOSPHERIC	-	-	-	65,236	75,223	83,366	95,407	102,301
EARTH SCIENCES	-	-	-	182,457	183,906	189,838	208,176	216,723
OCEANOGRAPHY	-	-	-	169,612	183,583	194,788	220,825	227,746
OTHER, N.E.C.	-	-	-	78,883	90,235	74,756	76,517	78,199
MATHEMATICAL SCIENCES	51,050	57,342	77,141	76,759	86,198	95,082	101,163	119,513
COMPUTER SCIENCES	52,996	64,333	95,276	111,415	130,880	146,673	174,997	219,498
LIFE SCIENCES	2,234,749	2,515,138	2,802,489	3,184,002	3,631,982	3,931,719	4,165,671	4,537,762
AGRICULTURAL SCIENCES	453,787	514,409	591,631	666,756	756,048	825,681	869,463	893,646
BIOLOGICAL SCIENCES	758,929	793,613	899,789	1,015,719	1,169,329	1,267,085	1,374,847	1,536,653
MEDICAL SCIENCES	947,629	1,128,652	1,234,837	1,410,704	1,596,507	1,719,504	1,795,999	1,969,011
OTHER, N.E.C.	74,404	78,464	76,232	90,823	110,098	119,449	125,362	138,452
PSYCHOLOGY	82,199	86,556	93,944	106,864	122,134	128,778	134,224	144,789
SOCIAL SCIENCES	254,749	264,351	283,183	324,129	350,331	339,441	335,734	341,910
ECONOMICS	70,825	74,332	80,780	87,292	96,646	94,022	95,459	103,008
POLITICAL SCIENCE	31,144	40,393	44,284	53,331	54,309	59,342	54,533	51,783
SOCIOLOGY	59,356	65,030	72,059	83,331	86,364	73,394	71,387	67,442
OTHER, N.E.C.	93,424	84,596	86,060	100,175	113,012	112,683	114,355	119,677
OTHER SCIENCES, N.E.C.	101,286	111,790	129,710	143,420	142,365	148,880	159,375	174,939

1/ DATA WERE NOT COLLECTED IN 1978.
2/ DETAIL NOT SEPARATELY AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 3. -- R&D EXPENDITURES AT DOCTORATE-GRANTING INSTITUTIONS
BY GEOGRAPHIC DIVISION, STATE, AND SOURCE OF FUNDS: FISCAL YEAR 1984

(DOLLARS IN THOUSANDS)

DIVISION AND STATE	TOTAL	FEDERAL GOVERNMENT	STATE AND LOCAL GOVERNMENTS	INDUSTRY	INSTITUTIONAL FUNDS	ALL OTHER SOURCES
TOTAL	8,321,159	5,288,167	638,116	446,950	1,331,865	616,061
NEW ENGLAND	831,882	631,809	13,442	54,769	66,772	65,090
CONNECTICUT	178,504	134,542	3,788	5,174	26,277	8,723
MAINE	17,107	8,444	1,587	2,320	4,284	472
MASSACHUSETTS	532,863	409,692	3,141	41,855	26,469	51,706
NEW HAMPSHIRE	31,865	21,824	2,445	1,063	4,651	1,882
RHODE ISLAND	49,275	42,375	947	2,227	2,226	1,500
VERMONT	22,268	14,932	1,534	2,130	2,865	807
MIDDLE ATLANTIC	1,356,347	904,191	54,019	86,654	170,412	141,071
NEW JERSEY	122,573	66,158	9,129	4,527	30,370	12,389
NEW YORK	831,602	565,717	35,961	42,002	92,996	94,926
PENNSYLVANIA	402,172	272,316	8,929	40,125	47,046	33,756
EAST NORTH CENTRAL	1,223,713	745,555	109,471	59,778	228,116	80,793
ILLINOIS	357,414	223,093	21,228	11,418	81,487	20,188
INDIANA	144,945	86,523	10,778	13,588	28,540	5,516
MICHIGAN	283,448	165,600	23,335	13,256	64,174	17,083
OHIO	224,458	145,630	15,506	14,159	25,105	24,058
WISCONSIN	213,448	124,709	38,624	7,357	28,810	13,948
WEST NORTH CENTRAL	579,108	288,752	79,093	30,366	142,555	38,342
IOWA	119,257	62,238	17,231	4,713	29,680	5,395
KANSAS	61,166	26,805	20,367	1,058	9,825	3,111
MINNESOTA	158,223	79,489	16,123	8,053	38,235	16,323
MISSOURI	150,240	86,278	9,234	11,941	32,071	10,716
NEBRASKA	53,801	19,702	2,567	3,075	26,462	1,995
NORTH DAKOTA	27,439	10,212	13,142	1,168	2,718	199
SOUTH DAKOTA	8,982	4,028	429	358	3,564	603
SOUTH ATLANTIC	1,318,178	886,695	98,116	76,773	200,471	56,123
DELAWARE	21,343	10,811	348	2,752	6,386	1,046
DISTRICT OF COLUMBIA	61,737	47,353	205	2,988	5,552	5,639
FLORIDA	182,235	92,529	7,874	12,501	55,814	13,517
GEORGIA	207,596	110,748	2,971	25,540	65,338	2,999
MARYLAND	465,398	390,315	26,592	8,007	24,516	15,968
NORTH CAROLINA	190,397	122,701	32,926	9,666	16,311	8,793
SOUTH CAROLINA	53,169	24,040	10,558	3,661	12,635	2,275
VIRGINIA	125,057	81,758	16,064	11,351	10,473	5,411
WEST VIRGINIA	11,246	6,440	578	307	3,446	475
EAST SOUTH CENTRAL	261,290	134,585	47,070	20,442	41,399	17,794
ALABAMA	83,087	48,668	9,916	7,356	7,526	9,621
KENTUCKY	52,647	19,317	12,510	4,378	15,729	713
MISSISSIPPI	49,156	17,635	16,386	2,173	10,275	2,687
TENNESSEE	76,400	48,965	8,258	6,535	7,869	4,773
WEST SOUTH CENTRAL	738,503	342,395	108,497	39,954	172,348	75,309
ARKANSAS	26,616	10,004	6,600	1,593	6,233	2,186
LOUISIANA	101,968	34,172	30,322	6,828	24,141	6,505
OKLAHOMA	90,833	25,701	3,381	5,980	53,426	2,345
TEXAS	519,086	272,518	68,194	25,553	88,548	64,273
MOUNTAIN	528,810	320,283	46,835	43,909	91,466	26,317
ARIZONA	118,818	57,183	6,192	9,635	39,619	6,189
COLORADO	153,730	102,826	9,361	13,294	19,474	8,775
IDAHO	19,626	12,987	2,093	2,584	1,236	726
MONTANA	24,262	7,391	8,499	2,235	6,137	0
NEVADA	17,513	10,706	319	2,719	2,432	1,337
NEW MEXICO	84,429	57,154	10,537	6,956	4,916	4,866
UTAH	94,697	64,336	9,509	4,752	12,150	3,950
WYOMING	15,735	7,700	325	1,734	5,502	474
PACIFIC	1,456,081	1,021,255	74,104	34,267	211,364	115,091
ALASKA	28,182	11,752	2,102	1,344	12,016	968
CALIFORNIA	1,092,084	778,811	15,903	18,415	187,199	91,756
HAWAII	51,051	32,701	15,715	380	1,444	811
OREGON	102,833	65,298	15,551	5,746	7,745	8,493
WASHINGTON	181,931	132,693	24,833	8,382	2,960	13,063
OUTLYING AREAS	27,247	12,647	7,469	38	6,962	131

SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 4. -- TOTAL AND FEDERALLY FINANCED R&D EXPENDITURES AT UNIVERSITIES AND COLLEGES: FISCAL YEARS 1981-84

(DOLLARS IN THOUSANDS)

	INSTITUTIONS RANKED BY TOTAL R&D EXPENDITURES (1984)	TOTAL				FEDERALLY FINANCED			
		1984	1983	1982	1981	1984	1983	1982	1981
	TOTAL, ALL INSTITUTIONS	8,473,749	7,781,471	7,287,645	6,818,995	5,386,578	4,956,082	4,752,219	4,961,812
1	JOHNS HOPKINS UNIVERSITY 1/	380,891	303,110E	289,940	270,490	331,859	282,386E	271,229	286,838
2	MASS INST OF TECHNOLOGY 2/	222,134	200,349	192,442	184,335	174,938	162,801	157,191	182,572
3	UNIV OF WIS-MADISON	184,190	166,282	157,920	147,535	110,704	100,026	101,019	96,340
4	STANFORD UNIVERSITY 2/	174,678	163,031	147,941	129,832	149,520	135,172	120,099	116,682
5	CORNELL UNIVERSITY 2/	149,490	133,323	148,789	123,275	100,767	90,185	90,538	81,903
6	UNIVERSITY OF MINNESOTA	138,283	131,441	140,486	133,057	79,489	79,637	83,044	77,850
7	UNIVERSITY OF MICHIGAN	135,987	123,864	119,973	133,088	99,341	84,120	74,686	84,242
8	UNIVERSITY OF WASHINGTON	146,947	135,823	132,118	124,822	119,785	108,512	109,058	102,984
9	UNIV OF CAL SAN DIEGO 3/	140,987	147,000	138,894	137,835	119,349	123,433	116,200	119,304
10	UNIV OF CAL BERKELEY 2/,3/	133,811	118,991	102,369	98,898	87,653	76,917	67,208	68,877
	TOTAL, 1ST 10 INSTS.	1,837,298	1,671,887	1,674,449	1,483,164	1,369,405	1,243,189	1,190,236	1,155,091
11	UNIV OF CAL LOS ANGELES 3/	132,134	113,266	103,294	97,314	96,524	83,699	78,222	74,178
12	COLUMBIA UNIV MAIN DIV	124,292	113,847	115,734	100,746	107,874	100,574	101,974	88,407
13	HARVARD UNIVERSITY	123,363E	110,602E	114,941E	111,697E	93,490	89,824	87,091	84,894
14	UNIV OF PENNSYLVANIA	121,963	113,499	112,836	104,430	89,831	80,516	81,014	80,373
15	TEXAS A & M UNIVERSITY	121,227	103,219	97,780	84,285	53,201	43,813	37,221	38,452
16	UNIV OF ILL URBANA	119,198	99,138	98,869	93,299	71,182	59,806	57,247	56,616
17	UNIV OF TEXAS AT AUSTIN	114,664	110,570	92,069	82,401	56,482	58,221	52,606	49,477
18	UNIV OF CAL SAN FRANC 3/	113,404	89,347	95,282	89,209	81,822	67,036	75,536	72,522
19	UNIV OF CAL DAVIS 3/	108,791	98,118	89,784	83,945	42,436	43,439	42,595	39,289
20	YALE UNIVERSITY	103,711	100,269	91,232	84,444	85,909	85,205	76,217	74,000
	TOTAL, 1ST 20 INSTS.	3,017,042	2,731,659	2,577,270	2,414,934	2,152,096	1,955,331	1,879,859	1,809,999
21	PENNSYLVANIA STATE UNIV	95,061	89,767	82,034	80,194	60,444	56,875	53,023	49,737
22	UNIVERSITY OF ARIZONA	94,946	89,192	88,247	80,726	47,411	44,741	44,113	42,412
23	GEORGIA INSTITUTE OF TECH	88,507	82,924	71,402	65,078	51,241	49,533	38,632	36,090
24	OHIO STATE UNIVERSITY	87,402	74,146E	82,614	78,492	46,060	41,438E	45,990	45,929
25	UNIV OF SOUTHERN CAL	87,278	84,395	87,140	76,834	64,239	57,976	55,101	48,243
26	UNIVERSITY OF COLORADO	85,433	75,798	66,377E	66,109E	59,080	55,028	53,985E	52,727E
27	MICHIGAN STATE UNIVERSITY	85,426	79,043	71,922	68,222	44,133	43,067	38,320	33,224
28	UNIVERSITY OF FLORIDA	85,057	73,467	68,370	60,073	39,946	33,708	33,178	29,215
29	UNIV OF MD COLLEGE PARK	84,442	81,504E	60,717E	45,230	33,033	31,094	27,521	26,394
30	PURDUE UNIVERSITY	83,478	75,510	67,299	73,723	43,524	42,147	41,949	42,757
	TOTAL, 1ST 30 INSTS.	3,894,072	3,537,405	3,323,392	3,109,615	2,641,207	2,410,938	2,311,671	2,216,727
31	UNIVERSITY OF GEORGIA	78,812	70,665	65,161	60,523	26,581	22,434	21,703	20,729
32	WASHINGTON UNIVERSITY	77,392	69,357	68,049	62,383	57,537	54,350	55,608	51,712
33	UNIVERSITY OF CHICAGO 2/	77,022	75,314	69,018	64,822	64,010	61,985	57,600	56,338
34	UNIVERSITY OF ROCHESTER 2/	73,970	65,305	65,547	66,148	55,015	48,744	50,233	45,845
35	NEW YORK UNIVERSITY	73,688	68,544	66,139	62,226	54,298	49,860	48,503	47,180
36	LOUISIANA STATE UNIV	72,870	68,383	66,814	60,293	19,981	18,044	18,220	19,165
37	UNIVERSITY OF CONNECTICUT	69,167	58,902	55,109	50,054	44,592	34,960	33,229	31,160
38	NORTHWESTERN UNIVERSITY	68,246	51,075	45,810	43,019	40,709	36,519	32,728	32,345
39	OREGON STATE UNIVERSITY	67,320	62,723	56,769	53,077	40,482	35,530	32,308	29,045
40	N C STATE UNIV AT RALEIGH 4/	64,837	59,909	55,781	50,283	20,083	23,286	21,217	18,420
	TOTAL, 1ST 40 INSTS.	4,617,396	4,187,582	3,937,589	3,682,443	3,064,495	2,796,650	2,683,020	2,568,666
41	IOWA ST U OF SCI & TECH 2/	62,472	64,861	55,294	52,313	20,755	21,050	18,659	17,916
42	DUKE UNIVERSITY	61,025	55,040	49,655E	46,407	50,793	46,808	47,238E	41,408
43	YESHIVA UNIVERSITY	58,893	53,812	52,235	45,400	51,494	46,102	44,759	40,700
44	UNIVERSITY OF IOWA	56,770	54,771	55,406	50,601	41,468	40,460	38,271	36,279
45	BAYLOR COL OF MEDICINE	56,746	54,986	48,661	44,733	37,378	36,772	35,852	34,054
46	ROCKEFELLER UNIVERSITY	55,353	52,000	46,172	41,619	26,713	23,625	21,213	20,026
47	UNIV OF NC AT CHAPEL HILL	53,960	50,892	47,711	49,109	44,430	43,384	39,235	39,011
48	CARNEGIE-MELLON UNIV	53,787	43,174	37,316	36,810	33,419	30,546	27,178	26,583
49	UNIVERSITY OF PITTSBURGH	53,540	47,313	46,548	39,165	40,668	36,334	34,772	29,108
50	SUNY AT BUFFALO 5/	52,711	50,129	27,800	28,029	39,417	38,415	18,375	18,651
	TOTAL, 1ST 50 INSTS.	5,182,653	4,714,560	4,404,387	4,116,629	3,451,030	3,160,146	3,008,572	2,872,402

SEE FOOTNOTES AT END OF TABLE.

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TABLE 4. -- TOTAL AND FEDERALLY FINANCED R&D EXPENDITURES AT UNIVERSITIES AND COLLEGES: FISCAL YEARS 1981-84

- CONTINUED

(DOLLARS IN THOUSANDS)

INSTITUTIONS RANKED BY TOTAL R&D EXPENDITURES (1984)	TOTAL				FEDERALLY FINANCED			
	1984	1983	1982	1981	1984	1983	1982	1981
51 RUTGERS THE ST UNIV OF NJ	51,568	49,729	42,938	40,279	19,984	18,894	18,643	18,943
52 UNIVERSITY OF MIAMI	51,057	48,283	51,899	55,512	30,644	32,236	34,090	39,005
53 UNIV OF HAWAII-MANOA	51,051	45,401	43,439	42,997	32,701	27,633	26,616	25,153
54 UNIVERSITY OF UTAH	50,416	46,830	43,765	42,632	41,606	37,981	35,019	35,319
55 CALIFORNIA INST OF TECH 2/	50,409	49,824	44,048	47,255	43,390	43,340	39,382	41,915
56 U TEXAS SYSTEM CANCER CTR	49,317	44,509	40,369	39,205	16,379	15,112	17,560	19,075
57 OKLAHOMA STATE UNIVERSITY	48,727	42,503I	39,472	33,782	9,170	11,544I	10,991	7,672
58 INDIANA UNIVERSITY	47,645	44,331	42,558	34,125	32,565	29,882	28,663	25,644
59 CASE WESTERN RESERVE UNIV	47,217	42,691	43,129	42,791	39,337	34,963	34,047	32,864
60 UNIV OF MISSOURI COLUMBIA	46,075	44,231	40,978	40,703	17,325	16,143	15,604	15,934
TOTAL, 1ST 60 INSTS.	5,676,135	5,172,892	4,836,982	4,535,910	3,734,131	3,427,874	3,269,187	3,133,926
61 UNIVERSITY OF KENTUCKY	45,058	40,829	38,907	35,755	15,922	13,786	15,010	13,965
62 UNIV OF ILL CHICAGO 6/	44,544	44,497	30,147I	25,681	24,829	24,549	20,484I	18,329
63 VA POLYTECH INST & ST U	44,417	40,420	39,909	37,933	21,655	19,037	17,967	18,490
64 WOODS HOLE OCNGRPHIC INST	43,454	42,070	33,725	33,902	37,765	35,997	29,002	28,740
65 UNIV OF NEBRASKA-LINCOLN	42,920	44,597	44,172	38,824	14,195	12,750	13,890	11,303
66 COLORADO STATE UNIVERSITY	42,876	41,572	46,641	45,567	26,479	25,321	29,961	30,796
67 U TEX HLTH SCI CTR DALLAS	42,461	36,456	32,058	29,868	29,175	26,561	25,121	23,890
68 UNIVERSITY OF VIRGINIA	41,815	37,620	33,661	30,924	31,947	28,564	26,892	26,119
69 NEW MEXICO STATE UNIV	41,646	41,579	34,650	32,999	29,159	30,750	26,066	25,122
70 PRINCETON UNIVERSITY	40,877	37,017	36,641	33,069	27,747	25,027	26,542	25,464
TOTAL, 1ST 70 INSTS.	6,106,203	5,579,549	5,207,493	4,880,432	3,993,004	3,670,216	3,500,122	3,356,144
71 UNIV ALABAMA BIRMINGHAM	40,407	31,311	35,792	33,904	32,383	25,509	30,234	29,118
72 UNIV OF CAL RIVERSIDE 3/	40,233	37,236	35,539	34,416	13,127	11,602	11,217	11,133
73 UNIVERSITY OF OKLAHOMA	40,129	40,987	29,785	32,006	16,003	14,206	13,523	14,206
74 SUNY AT STONY BROOK	40,124	36,941	36,468	32,216	28,047	25,639	24,904	23,756
75 BOSTON UNIVERSITY	39,272	32,421	30,603	28,917	34,276	27,906	27,374	26,036
76 MISSISSIPPI STATE UNIV	38,410	35,714	36,582	33,684	10,310	7,775	9,560	9,833
77 UNIV OF CAL IRVINE 3/	37,023	33,293	31,456	29,917	29,929	27,484	26,234	24,570
78 UTAH STATE UNIVERSITY	36,642	36,711	33,822	28,149	19,983	19,058	19,123	16,328
79 KANS ST U - AG & APP SCI	35,598	35,130	34,806	32,049	10,766	10,268	10,928	9,884
80 WASHINGTON STATE UNIV	34,984	33,583	34,257	31,831	12,908	12,563	12,961	11,298
TOTAL, 1ST 80 INSTS.	6,489,025	5,932,876	5,546,603	5,197,521	4,200,736	3,852,226	3,686,180	3,531,806
81 UNIV OF MASS AT AMHERST	33,199	29,696	28,887	24,477	18,773	17,072	16,053	14,418
82 UNIVERSITY OF NEW MEXICO	33,161	33,356I	30,977	25,271	23,342	23,073I	21,968	18,862
83 UNIVERSITY OF CINCINNATI	32,708	29,008	28,573	31,262	22,350	20,074	20,060	17,900
84 CUNY MT SINAI SCH OF MED	31,273	28,561	29,797	28,794	21,411	20,587	21,496	23,358
85 AUBURN UNIVERSITY	29,977	26,176	23,256	22,711	8,448	8,083	7,473	7,476
86 VANDERBILT UNIVERSITY	29,760	26,322	24,993	23,919	21,649	19,889	19,649	19,290
87 UNIV OF ALASKA FAIRBANKS	28,182	37,325	38,218	36,652	11,752	13,859	19,055	18,995
88 EMORY UNIVERSITY	27,522	24,284	21,423	18,784	22,896	20,163	18,015	15,843
89 UNIV OF CAL STA BARBARA 3/	27,404	22,884	13,102	12,220	21,552	17,863	10,630	10,596
90 WAYNE STATE UNIVERSITY	26,386	23,990	21,542	22,569	14,965	12,713	12,903	13,192
TOTAL, 1ST 90 INSTS.	6,788,597	6,214,478	5,807,371	5,444,180	4,387,874	4,025,602	3,853,485	3,691,736
91 U TEX HLTH SCI CTR S ANTO	25,911	24,743	19,341	17,251	16,550	16,005	13,319	11,887
92 BROWN UNIVERSITY	25,771	22,805	21,331	19,255	21,294	19,728	18,345	17,062
93 VIRGINIA COMMONWLTH UNIV	25,761	26,235	22,385	20,286	20,658	21,998E	18,852	16,894
94 FLORIDA STATE UNIVERSITY	25,734	22,767	22,877	22,703	12,054	10,810	10,385	9,682
95 TEMPLE UNIVERSITY	25,601	24,632	21,503	18,283	18,680	18,567	15,541	14,102
96 GEORGETOWN UNIVERSITY	24,187	19,885	18,888	19,681	14,626	11,630	12,004	11,185
97 TULANE UNIVERSITY	23,919	22,440	19,271	18,984	12,294	11,221	10,678	10,332
98 UNIVERSITY OF DAYTON	23,556	19,930	18,612	20,357	20,216	16,984	16,226	19,027
99 CLEMSON UNIVERSITY	23,543	21,766	23,552	19,559E	6,668	7,822	9,196	6,290
100 UNIV OF RHODE ISLAND	23,481	24,766I	23,000E	21,968	21,081	19,326I	18,400E	19,428
TOTAL, 1ST 100 INSTS.	7,036,061	6,444,447	6,018,131	5,642,507	4,551,995	4,179,693	3,996,431	3,827,625
TOTAL, ALL OTHER INSTS.	1,436,688	1,337,024	1,269,514	1,176,088	834,583	776,389	755,788	734,187

1/ INCLUDES APPLIED PHYSICS LABORATORY WITH $248 MILLION IN TOTAL AND $243 MILLION IN FEDERALLY FINANCED R&D EXPENDITURES IN FY 1984.
2/ DOES NOT INCLUDE R&D EXPENDITURES AT UNIVERSITY ASSOCIATED FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS (FFRDC'S). SEE TABLE B-76.
3/ THE UNIVERSITY OF CALIFORNIA SYSTEM REPORTED SIGNIFICANT CHANGES IN FY 1983 COMPARED TO PREVIOUS YEARS, AS THE RESULT OF RECLASSIFYING SCIENCE AND ENGINEERING (S/E) AWARDS AND RESTRUCTURING SOME S/E DEPARTMENTS.
4/ NORTH CAROLINA STATE UNIVERSITY AT RALEIGH REPORTED SIGNIFICANT CHANGES IN FY 1984 COMPARED TO PREVIOUS YEARS, AS THE RESULT OF RECLASSIFYING SCIENCE AND ENGINEERING (S/E) AWARDS AND RESTRUCTURING SOME S/E DEPARTMENTS.
5/ BEGINNING IN FY 1983, INCLUDES DATA FOR ROSWELL PARK MEMORIAL INSTITUTE, FORMERLY CLASSIFIED AS A NONPROFIT INSTITUTION.
6/ DATA REPRESENT COMBINED TOTALS FOR THE UNIVERSITY OF ILLINOIS CHICAGO CIRCLE AND THE UNIVERSITY OF ILLINOIS MEDICAL CENTER.

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED. DASHES INDICATE THAT DATA ARE NOT AVAILABLE.

SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 8. -- INDUSTRY-SPONSORED R&D EXPENDITURES AT UNIVERSITIES AND COLLEGES: FISCAL YEARS 1979-84

(DOLLARS IN THOUSANDS)

	INSTITUTIONAL RANKING	1984	1983	1982	1981	1980	1979
	TOTAL, ALL INSTITUTIONS	457,227	377,762	333,905	291,150	237,025	194,186
1	MASS INST OF TECHNOLOGY	26,458	17,944	17,195	14,964	11,402	6,550
2	GEORGIA INSTITUTE OF TECH	18,131	13,255	11,359	8,581	6,243	4,892
3	CORNELL UNIVERSITY	13,229	9,206	7,495	5,879	5,153	4,462
4	PENNSYLVANIA STATE UNIV	12,995	12,445	10,581	10,056	7,842	5,420
5	CARNEGIE-MELLON UNIV	12,603	7,922	4,844	5,258	5,010	5,429
6	PURDUE UNIVERSITY	9,232	9,269	7,405	6,849	4,756	3,822
7	STANFORD UNIVERSITY	9,043	6,430	8,969	5,713	3,215	3,222
8	WASHINGTON UNIVERSITY	8,339	5,601	2,388	1,060	1,029	820
9	UNIVERSITY OF MINNESOTA	8,053	5,962	4,720	4,559	4,352	3,629
10	UNIVERSITY OF ARIZONA	7,837	7,956	8,554	7,567	5,923	4,894
	TOTAL, 1ST 10 INSTS.	125,920	95,990	83,510	70,486	54,925	43,140
11	UNIV OF MD COLLEGE PARK	7,691E	7,539E	4,964E	2,817	2,263	1,173
12	UNIVERSITY OF MICHIGAN	7,559	5,984	7,408	6,712	6,145	6,155
13	UNIVERSITY OF ROCHESTER	7,134	6,481	4,561	7,336	7,869	7,950
14	UNIVERSITY OF WASHINGTON	6,801	6,176	5,140	4,943	3,830	3,157
15	COLORADO STATE UNIVERSITY	6,750	6,426	5,130	3,878	2,505	1,107
16	OHIO STATE UNIVERSITY	6,559	6,014E	4,260	3,752	3,699	3,080
17	VA POLYTECH INST & ST U	5,806	6,110	6,515	5,658	3,692	3,319
18	TEXAS A & M UNIVERSITY	5,601	6,483	4,933	6,219	4,281	0
19	UNIVERSITY OF MIAMI	5,600	4,384	4,605	1,690	1,895	1,732
20	UNIV OF WIS-MADISON	5,451	4,502	3,446	2,880	2,615	2,243
	TOTAL, 1ST 20 INSTS.	190,872	156,089	134,472	116,371	93,719	73,056
21	UNIVERSITY OF FLORIDA	5,000	4,345	3,650	2,388	3,045E	2,083
22	UNIV OF ILL URBANA	4,922	3,448	1,598	4,103	3,404	2,463
23	HARVARD UNIVERSITY	4,883E	4,695E	4,550E	4,422E	3,995E	3,524E
24	UNIV OF SOUTHERN CAL	4,800	2,012	5,223	5,853	7,462	2,919
25	RENSSELAER POLYTECH INST	4,785	3,589	2,848	2,103	1,394	1,236
26	DUKE UNIVERSITY	4,622	3,166	510I	1,053	779	1,479
27	UNIVERSITY OF KENTUCKY	4,378	3,007	3,337	2,763	312	922
28	UNIVERSITY OF GEORGIA	4,356	4,486	3,059	2,630	2,076	1,924
29	BAYLOR COL OF MEDICINE	3,932	4,726	3,054	2,927	2,801	1,127
30	CALIFORNIA INST OF TECH	3,798	2,445	2,025	2,174	1,993	1,266
	TOTAL, 1ST 30 INSTS.	236,348	192,008	164,326	146,787	120,980	91,999
31	THOMAS JEFFERSON UNIV	3,681	4,290	2,363	2,149	355E	345
32	U TEX HLTH SCI CTR DALLAS	3,620	2,792	1,915	1,654	1,319	1,164
33	UNIVERSITY OF CONNECTICUT	3,537	1,743	1,570	1,104	959	898
34	UNIVERSITY OF NEW MEXICO	3,523	3,019I	2,645	2,381	2,822	2,909
35	OREGON STATE UNIVERSITY	3,519	3,424	2,782	2,564	1,572	1,448
36	TULANE UNIVERSITY	3,372	2,410	2,516	1,439	781	739
37	NEW YORK UNIVERSITY	3,240	2,649	2,952	1,877	2,080	2,269
38	UNIV ALABAMA BIRMINGHAM	3,117	2,265	1,509	1,189	1,585	947
39	VANDERBILT UNIVERSITY	3,040	2,403	2,146	2,013	1,890	1,442
40	N C STATE UNIV AT RALEIGH	3,026	3,246	2,712I	2,500	1,800	3,000
	TOTAL, 1ST 40 INSTS.	270,023	220,249	187,436	165,657	136,143	107,160
41	UNIV OF PENNSYLVANIA	3,013	1,821	2,592	3,580	2,010	2,011
42	IOWA ST U OF SCI & TECH	2,925	2,957	2,106	2,396	1,854	1,916
43	ROCKEFELLER UNIVERSITY	2,817	2,661	1,740	1,122	678	669
44	UNIVERSITY OF PITTSBURGH	2,813	2,919	1,445	799	774	930
45	UNIVERSITY OF DELAWARE	2,752	3,075	2,445	2,246	2,138E	2,205
46	WORCESTER POLY INSTITUTE	2,664I	2,437	2,234	1,449	1,630	2,140
47	OKLAHOMA STATE UNIVERSITY	2,631	2,283I	2,100	2,446	2,224	1,154
48	UNIV OF MASS AT AMHERST	2,627	2,018	1,601	964	413	606
49	AUBURN UNIVERSITY	2,604	1,904	1,560	1,266	530	0
50	DESERT RESEARCH INSTITUTE	2,585	2,375	2,196	2,726	1,814	1,358
	TOTAL, 1ST 50 INSTS.	297,454	244,699	207,455	184,651	150,208	120,149

SEE FOOTNOTES AT END OF TABLE.

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TABLE 5. -- INDUSTRY-SPONSORED R&D EXPENDITURES AT UNIVERSITIES AND COLLEGES: FISCAL YEARS 1979-84
- CONTINUED

(DOLLARS IN THOUSANDS)

	INSTITUTIONAL RANKING	1984	1983	1982	1981	1980	1979
51	UNIVERSITY OF IDAHO	2,567	2,260	1,622	1,001	301	246
52	GEORGETOWN UNIVERSITY	2,531	1,234	1,570	1,768	1,535	1,112
53	U TEX HLTH SCI CTR S ANTO	2,497	2,237	1,495	1,077	722	485
54	LOUISIANA STATE UNIV	2,487	1,834	1,720	1,501	1,267	365
55	MICHIGAN STATE UNIVERSITY	2,446	619	2,200	2,411	2,543	2,368
56	UNIVERSITY OF VIRGINIA	2,399	2,342	1,877	1,455	984	663
57	EMORY UNIVERSITY	2,395	1,957	1,271	1,042	867	746
58	UNIVERSITY OF DENVER	2,379I	2,132I	1,995	2,187I	1,697	1,610
59	INDIANA UNIVERSITY	2,361	2,402	1,463	1,258	831	672
60	COLORADO SCHOOL OF MINES	2,356	1,609	900	1,175	497	494I
	TOTAL, 1ST 60 INSTS.	321,872	263,325	223,568	199,526	161,452	128,910
61	UNIV OF MAINE ORONO	2,320	1,404	1,088	1,087	392	696
62	BROWN UNIVERSITY	2,227	1,527	2,236	1,700	650	94
63	UNIVERSITY OF DAYTON	2,226	2,108	1,793	990I	1,257	1,684
64	UNIV OF VT & ST AGRIC COL	2,130	1,665	1,369	1,013	801	945
65	UNIV OF MISSOURI COLUMBIA	2,128	1,492	983	1,224	509	618
66	TEXAS TECH UNIVERSITY	2,077I	1,910	1,953	1,961	1,969	1,616
67	UNIVERSITY OF OKLAHOMA	2,075	2,260	1,642	1,470	647	261
68	CLEMSON UNIVERSITY	2,009	2,223	2,319	2,098	1,126	790
69	UNIV OF TEXAS AT AUSTIN	1,932	1,750	1,624	1,340	1,237	1,122
70	MICHIGAN TECH UNIVERSITY	1,901	1,453	1,673	1,642	2,064	1,394
	TOTAL, 1ST 70 INSTS.	342,897	281,117	240,248	214,051	172,104	138,130
71	UNIVERSITY OF NOTRE DAME	1,874	1,237	1,076	805	683	684
72	LEHIGH UNIVERSITY	1,865	1,488	1,294	1,167	1,076	708
73	MONTANA STATE UNIVERSITY	1,818	1,054	860	1,097	1,070	617
74	RUTGERS THE ST UNIV OF NJ	1,817	1,694	1,264	979	1,008	807
75	UNIVERSITY OF COLORADO	1,809	1,542	2,860E	2,794E	2,674	1,052
76	CASE WESTERN RESERVE UNIV	1,802	1,720	1,896	1,729	1,790	1,419
77	CUNY MT SINAI SCH OF MED	1,795	1,145	849	728	554	263
78	UNIVERSITY OF IOWA	1,788	1,490	1,600	1,197	1,095	818
79	BRIGHAM YOUNG UNIVERSITY	1,787	1,207	1,328	2,446I	2,198E	2,035
80	N MEX INST MINING & TECH	1,739	879I	784	1,034	786	395
	TOTAL, 1ST 80 INSTS.	360,991	294,573	254,059	228,027	185,038	146,928
81	UNIVERSITY OF WYOMING	1,734	1,740	1,312	1,302	1,104	738
82	OREGON GRADUATE CENTER	1,732	1,108I	1,042I	922	878	972
83	NEW MEXICO STATE UNIV	1,694	0	0	0	0	0
84	UNIVERSITY OF UTAH	1,659	1,888	1,432	929	851	932
85	YALE UNIVERSITY	1,637	1,316	905	629	582	1,629E
86	ARIZONA STATE UNIVERSITY	1,588	1,373	750	285	124	173
87	WASHINGTON STATE UNIV	1,581	1,517	2,865	1,320	795	1,031
88	SOUTHERN ILL U-CARBONDALE	1,575	2,519	2,690	2,157	967	0
89	DREXEL UNIVERSITY	1,562	611	542	487	348	592
90	UNIVERSITY OF LOWELL	1,519	1,360	445I	402	374	280
	TOTAL, 1ST 90 INSTS.	377,272	308,005	266,042	236,460	191,061	153,275
91	U OF HOUSTON UNIV PARK	1,500	1,239	1,472	2,286	602	1,236
92	VIRGINIA COMMONWLTH UNIV	1,412	350E	299	49	143	300
93	UNIV OF ARK FAYETTEVILLE	1,391	1,514	1,402	1,048	1,186	807
94	UNIVERSITY OF CINCINNATI	1,388	1,262	1,133	1,589	1,237	877
95	UNIV OF ALASKA FAIRBANKS	1,344	3,143	2,882	2,279	830	855
96	UTAH STATE UNIVERSITY	1,306	1,141	703	495	533	466
97	UNIV OF NEBRASKA-LINCOLN	1,285	1,203	1,037	762	996	638
98	UNIVERSITY OF TULSA	1,274E	702	717	1,230	800	562
99	STEVENS INSTITUTE OF TECH	1,256	0	1,290	1,411	1,198	1,153
100	MISSISSIPPI STATE UNIV	1,250	1,229	1,536	628	458	372
	TOTAL, 1ST 100 INSTS.	390,678	319,788	278,513	248,237	199,044	160,541
	TOTAL, ALL OTHER INSTS.	66,549	57,974	55,392	42,913	37,981	33,645

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED. DASHES INDICATE THAT DATA ARE NOT AVAILABLE.

SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 6. -- CURRENT FUND EXPENDITURES FOR RESEARCH EQUIPMENT AT UNIVERSITIES AND COLLEGES BY SCIENCE/ENGINEERING FIELD AND SOURCE OF FUNDS: FISCAL YEARS 1981 AND 1983-84

(DOLLARS IN THOUSANDS)

FIELD	TOTAL			FEDERAL			NON-FEDERAL		
	1981	1983	1984	1981	1983	1984	1981	1983	1984
TOTAL	413,972	435,178	518,068	265,048	272,819	335,486	148,924	162,359	182,583
ENGINEERING, TOTAL	69,008	75,018	90,610	42,396	48,958	59,278	26,612	26,060	31,332
AERONAUTICAL AND ASTRONAUTICAL	2,870	2,892	5,353	2,097	2,091	4,036	773	801	1,317
CHEMICAL	7,019	6,243	7,438	4,436	3,614	4,019	2,583	2,629	3,419
CIVIL	5,036	6,148	6,641	2,772	3,438	4,164	2,264	2,710	2,477
ELECTRICAL	18,372	20,788	23,106	13,262	14,519	15,777	5,110	6,239	7,329
MECHANICAL	9,690	10,018	14,272	5,695	6,581	10,021	3,995	3,437	4,251
OTHER, N.E.C.	26,021	28,959	33,799	14,134	18,715	21,261	11,887	10,244	12,538
ALL SCIENCES, TOTAL	344,964	360,160	427,459	222,652	223,861	276,207	122,312	136,299	151,251
PHYSICAL SCIENCES	76,141	79,375	107,439	58,475	62,055	86,738	17,666	17,320	20,702
ASTRONOMY	4,882	4,243	5,761	3,232	3,465	4,278	1,350	778	1,483
CHEMISTRY	35,383	32,814	43,456	25,918	23,551	33,100	9,465	9,263	10,355
PHYSICS	32,476	35,708	47,606	26,320	29,587	40,474	6,156	6,121	7,132
OTHER, N.E.C.	3,700	6,610	10,617	3,005	5,452	8,886	695	1,158	1,731
ENVIRONMENTAL SCIENCES	31,479	31,521	40,806	19,165	19,649	29,477	12,314	11,872	11,329
ATMOSPHERIC	5,717	5,106	6,710	3,499	3,615	4,928	2,218	1,491	1,782
EARTH SCIENCES	11,726	11,891	16,012	6,924	6,621	10,032	4,802	5,270	5,980
OCEANOGRAPHY	8,860	10,958	13,674	6,023	6,840	11,336	2,837	4,118	2,338
OTHER, N.E.C.	5,176	3,566	4,410	2,719	2,573	3,181	2,457	993	1,229
MATHEMATICAL SCIENCES	1,902	2,668	4,539	1,127	1,476	3,212	775	1,192	1,327
COMPUTER SCIENCES	10,899	15,615	19,056	5,436	10,229	14,056	5,463	5,386	4,999
LIFE SCIENCES	202,184	205,680	225,572	126,175	117,039	128,837	76,009	88,641	96,734
AGRICULTURAL SCIENCES	36,892	37,985	37,233	12,316	10,281	12,028	24,576	27,704	25,205
BIOLOGICAL SCIENCES	76,861	75,271	84,634	54,481	51,078	58,011	22,380	24,193	26,623
MEDICAL SCIENCES	81,501	85,829	95,855	54,329	51,745	54,194	26,572	34,084	41,661
OTHER, N.E.C.	6,930	6,595	7,849	4,449	3,935	4,604	2,481	2,660	3,245
PSYCHOLOGY	6,022	6,629	7,066	4,466	4,749	5,016	1,556	1,880	2,050
SOCIAL SCIENCES	9,179	8,961	12,724	3,999	2,917	3,484	5,180	6,044	9,240
ECONOMICS	1,861	1,911	2,414	525	728	1,014	1,336	1,183	1,400
POLITICAL SCIENCE	1,523	767	834	756	319	297	767	448	537
SOCIOLOGY	2,558	1,472	1,567	1,478	944	963	1,080	528	604
OTHER, N.E.C.	3,237	4,811	7,909	1,240	926	1,210	1,997	3,885	6,699
OTHER SCIENCES, N.E.C.	7,158	9,711	10,257	3,809	5,747	5,387	3,349	3,964	4,870

SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 7. -- CAPITAL EXPENDITURES AT UNIVERSITIES AND COLLEGES
BY SCIENCE/ENGINEERING FIELD AND SOURCE OF FUNDS: FISCAL YEARS 1977 AND 1979-84 1/

(DOLLARS IN THOUSANDS)

FIELD	1977	1979	1980	1981	1982	1983	1984
TOTAL	960,014	696,218	794,512	952,672	969,147	1,099,846	1,216,513
ENGINEERING	87,718	87,128	89,297	103,329	144,457	135,206	143,108
ALL SCIENCES, TOTAL	872,296	609,090	705,215	849,343	824,690	964,640	1,073,404
PHYSICAL SCIENCES	65,216	64,685	77,154	87,813	82,100	97,594	116,483
ENVIRONMENTAL SCIENCES	28,351	25,153	36,208	35,025	42,365	41,114	36,826
MATHEMATICAL/COMPUTER SCIENCES	25,136	27,282	32,318	30,517	34,328	53,152	49,976
LIFE SCIENCES	642,493	428,293	459,057	597,635	590,353	678,959	741,674
PSYCHOLOGY	12,702	7,060	17,982	10,991	12,798	17,039	35,237
SOCIAL SCIENCES	31,798	21,358	35,073	45,138	30,797	40,977	52,062
OTHER SCIENCES, N.E.C.	66,600	35,259	47,423	42,224	31,949	35,805	41,146
FEDERAL SOURCES, TOTAL	195,519	164,460	149,563	153,800	116,651	132,422	142,970
ENGINEERING	17,219	20,927	20,438	17,601	18,136	16,389	24,227
ALL SCIENCES, TOTAL	178,300	143,533	129,125	136,199	98,515	116,033	118,743
PHYSICAL SCIENCES	21,894	32,186	22,463	25,529	20,154	18,706	19,321
ENVIRONMENTAL SCIENCES	9,307	8,220	8,033	6,866	4,404	3,646	3,502
MATHEMATICAL/COMPUTER SCIENCES	1,882	2,983	5,653	4,944	3,798	4,512	5,301
LIFE SCIENCES	137,369	90,796	86,105	89,410	66,004	81,197	85,658
PSYCHOLOGY	2,398	1,740	2,002	1,580	1,023	1,392	1,040
SOCIAL SCIENCES	2,109	2,076	1,528	6,376	1,374	5,066	3,061
OTHER SCIENCES, N.E.C.	3,341	5,532	3,341	1,494	1,758	1,514	860
OTHER SOURCES, TOTAL	764,495	531,758	644,949	798,872	852,496	967,424	1,073,542
ENGINEERING	70,499	66,201	68,859	85,728	126,321	118,817	118,881
ALL SCIENCES, TOTAL	693,996	465,557	576,090	713,144	726,175	848,607	954,661
PHYSICAL SCIENCES	43,322	32,499	54,691	62,284	61,946	78,888	97,163
ENVIRONMENTAL SCIENCES	19,044	16,933	28,175	28,159	37,961	37,468	33,324
MATHEMATICAL/COMPUTER SCIENCES	23,254	24,299	26,665	25,573	30,530	48,640	44,675
LIFE SCIENCES	505,124	337,497	372,952	508,225	524,349	597,762	656,016
PSYCHOLOGY	10,304	5,320	15,980	9,411	11,775	15,647	34,197
SOCIAL SCIENCES	29,689	19,282	33,545	38,762	29,423	35,911	49,001
OTHER SCIENCES, N.E.C.	63,259	29,727	44,082	40,730	30,191	34,291	40,286

1/ INCLUDES EXPENDITURES FOR FACILITIES AND EQUIPMENT FOR RESEARCH, DEVELOPMENT, AND INSTRUCTION.
SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 8. -- FEDERAL OBLIGATIONS FOR RESEARCH AND DEVELOPMENT TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS: FY 1977-84 1/

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED FOR FY 1984)	1977	1978	1979	1980	1981	1982	1983	1984
	TOTAL, ALL INSTITUTIONS	2,803,017	3,385,770	3,873,814	4,159,857	4,410,199	4,953,755	5,023,677	5,622,768
1	JOHNS HOPKINS UNIVERSITY	91,100	196,881	274,443	240,096	263,429	312,979	318,374	467,080
2	MASS INST OF TECHNOLOGY	91,952	114,708	110,681	142,094	144,035	148,837	174,704	174,704
3	STANFORD UNIVERSITY	73,683	80,805	94,030	104,610	106,073	124,289	140,080	140,474
4	UNIVERSITY OF WASHINGTON	69,882	76,499	88,332	100,577	93,968	97,690	114,394	130,803
5	COLUMBIA UNIV MAIN DIV	60,518	65,264	74,183	81,511	83,659	88,879	101,006	110,089
6	UNIV OF CAL LOS ANGELES	63,873	69,878	87,167	87,284	94,945	89,661	108,480	110,087
7	CORNELL UNIVERSITY	50,319	58,729	69,257	75,166	72,671	83,936	93,644	108,338
8	UNIV OF CAL SAN DIEGO	70,897	77,249	85,987	91,427	91,403	90,896	104,871	104,083
9	UNIV OF WIS-MADISON	58,639	65,530	75,982	80,828	86,918	82,417	93,568	99,831
10	HARVARD UNIVERSITY	58,250	69,089	75,943	84,554	87,830	85,757	89,457	98,972
	TOTAL 1ST 10 INSTITUTIONS	648,813	874,629	1,036,025	1,088,147	1,232,928	1,205,341	1,342,460	1,571,203
11	YALE UNIVERSITY	47,485	54,033	63,217	68,937	73,526	78,920	88,335	97,905
12	UNIVERSITY OF MICHIGAN	52,895	58,739	63,186	71,935	73,999	79,794	81,248	95,307
13	UNIV OF PENNSYLVANIA	48,378	56,948	66,121	71,084	76,136	76,907	83,251	94,154
14	UNIV OF CAL BERKELEY	45,094	50,477	54,701	50,426	64,065	65,555	75,293	85,852
15	UNIV OF CAL SAN FRANCISCO	38,103	46,528	59,475	62,771	64,814	66,752	75,718	85,449
16	UNIV OF SOUTHERN CAL	37,738	42,908	50,179	48,343	49,221	50,402	62,837	79,617
17	UNIVERSITY OF MINNESOTA	50,160	59,935	64,742	76,068	72,001	78,714	74,102	72,494
18	UNIV OF ILL URBANA	38,824	43,495	45,084	50,800	53,583	63,923	66,055	68,911
19	UNIVERSITY OF CHICAGO	46,046	49,239	50,924	50,592	53,992	54,182	62,318	68,703
20	PENNSYLVANIA STATE UNIV	23,019	42,106	44,257	48,463	47,099	50,809	61,798	64,372
	TOTAL 1ST 20 INSTITUTIONS	1,076,555	1,379,037	1,597,911	1,687,566	1,861,364	1,871,299	2,073,415	2,383,967
21	UNIVERSITY OF COLORADO	30,059	32,198	36,049	44,823	46,146	43,786	50,626	62,708
22	UNIV OF TEXAS AT AUSTIN	29,142	37,352	37,913	40,434	43,756	44,767	56,300	62,316
23	DUKE UNIVERSITY	30,059	34,790	41,873	42,685	44,287	50,397	55,619	62,074
24	WASHINGTON UNIVERSITY	37,861	42,260	48,364	52,529	54,170	52,839	55,754	61,341
25	UNIVERSITY OF ROCHESTER	26,491	33,813	35,427	41,324	42,983	46,427	53,358	60,157
26	NEW YORK UNIVERSITY	35,726	38,283	38,987	39,494	40,636	43,643	51,975	55,028
27	YESHIVA UNIVERSITY	26,244	28,710	35,401	40,275	42,590	44,237	51,279	53,077
28	UNIVERSITY OF PITTSBURGH	21,576	26,086	31,522	33,246	38,512	39,397	45,805	50,557
29	CALIFORNIA INST OF TECH	25,085	28,235	31,680	35,552	32,959	36,672	44,076	48,589
30	UNIV OF NC AT CHAPEL HILL	21,348	26,774	40,433	35,795	38,447	41,890	47,228	48,491
	TOTAL 1ST 30 INSTITUTIONS	1,360,146	1,707,538	1,975,560	2,093,723	2,285,850	2,315,354	2,585,435	2,948,305
31	UNIVERSITY OF IOWA	21,537	24,551	33,284	34,677	35,300	36,971	41,121	48,378
32	OHIO STATE UNIVERSITY	25,304	34,177	33,672	37,312	42,899	41,073	45,543	48,339
33	UNIVERSITY OF UTAH	24,998	29,567	35,524	31,966	38,163	39,886	40,853	45,427
34	CASE WESTERN RESERVE UNIV	20,175	24,853	29,606	31,420	33,744	34,834	38,438	43,931
35	UNIVERSITY OF ARIZONA	25,296	26,450	30,375	33,887	36,308	35,688	40,110	43,380
36	NORTHWESTERN UNIVERSITY	23,468	26,958	31,520	31,982	32,446	33,117	37,284	42,864
37	PURDUE UNIVERSITY	23,945	29,863	31,117	36,724	36,549	38,142	37,346	41,892
38	MICHIGAN STATE UNIVERSITY	20,179	21,921	27,394	28,836	34,000	35,667	41,935	41,205
39	UNIVERSITY OF FLORIDA	18,670	21,690	22,129	25,467	30,845	35,106	35,549	40,847
40	WOODS HOLE OCNGRPHIC INST	15,988	19,625	19,131	23,427	27,633	32,877	31,039	39,705
	TOTAL 1ST 40 INSTITUTIONS	1,579,706	1,967,193	2,269,312	2,409,421	2,633,737	2,678,715	2,974,653	3,384,273
41	BAYLOR COL OF MEDICINE	20,338	26,476	29,806	31,784	35,062	36,972	35,551	39,340
42	BOSTON UNIVERSITY	17,212	19,763	20,925	24,943	27,019	30,397	38,406	39,306
43	GEORGIA INSTITUTE OF TECH	19,242	22,253	24,146	27,868	33,616	43,530	45,835	38,460
44	UNIV OF MD COLLEGE PARK	18,535	19,401	21,049	26,463	27,313	28,355	35,514	38,260
45	UNIV ALABAMA BIRMINGHAM	18,862	21,511	26,847	26,995	29,970	28,731	32,627	37,839
46	UNIV OF CAL DAVIS	22,413	27,827	33,615	42,245	31,757	32,700	35,729	37,586
47	OREGON STATE UNIVERSITY	19,221	18,646	23,158	29,690	27,669	33,245	31,030	37,499
48	VANDERBILT UNIVERSITY	16,876	20,151	21,747	25,978	27,426	28,739	31,996	35,338
49	INDIANA UNIVERSITY	18,771	19,158	20,730	26,770	29,276	30,056	30,559	35,123
50	UNIVERSITY OF NEW MEXICO	14,196	18,440	20,139	17,952	18,976	24,724	22,189	33,842
	TOTAL 1ST 50 INSTITUTIONS	1,765,372	2,180,819	2,511,474	2,690,109	2,921,821	2,996,164	3,314,089	3,756,866

SEE FOOTNOTES AT END OF TABLE.

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TABLE 8. -- FEDERAL OBLIGATIONS FOR RESEARCH AND DEVELOPMENT TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS: FY 1977-84 1/

- CONTINUED

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED FOR FY 1984)	1977	1978	1979	1980	1981	1982	1983	1984
51	U TEX HLTH SCI CTR DALLAS	15,688	16,084	20,270	22,172	23,911	23,966	27,787	32,949
52	TEXAS A & M UNIVERSITY	14,594	20,262	26,426	26,979	34,398	33,144	35,407	31,072
53	UNIVERSITY OF VIRGINIA	17,436	19,151	22,686	23,583	24,333	25,688	27,984	30,279
54	SUNY AT STONY BROOK	11,648	12,651	14,817	18,449	19,602	22,221	24,941	29,770
55	ROCKEFELLER UNIVERSITY	15,371	17,473	17,163	19,686	19,952	20,807	25,245	29,484
56	PRINCETON UNIVERSITY	16,685	17,410	19,410	21,492	23,888	23,668	26,782	28,783
57	UNIVERSITY OF CONNECTICUT	12,922	15,072	19,011	19,171	22,196	24,972	26,397	28,060
58	TUFTS UNIVERSITY	6,749	7,742	9,798	9,853	15,642	16,808	24,604	27,995
59	UNIVERSITY OF MIAMI	24,123	25,761	27,360	27,986	28,956	27,070	28,936	27,880
60	CARNEGIE-MELLON UNIV	13,449	13,972	16,562	22,081	21,915	25,463	36,345	27,650
	TOTAL 1ST 60 INSTITUTIONS	1,914,037	2,346,397	2,704,977	2,901,561	3,156,614	3,239,971	3,598,517	4,050,788
61	UNIV OF CAL IRVINE	10,329	11,922	13,847	18,605	20,614	22,003	23,874	26,798
62	CUNY MT SINAI SCH OF MED	16,707	18,868	21,131	21,799	19,874	19,433	22,595	26,796
63	NEW MEXICO STATE UNIV	12,268	16,260	11,272	12,284	11,759	21,068	27,452	26,660
64	LOUISIANA STATE UNIV	10,085	13,886	14,719	19,214	19,323	22,141	21,186	25,944
65	COLORADO STATE UNIVERSITY	18,990	20,920	21,429	22,762	21,487	22,614	25,022	25,002
66	UNIV OF HAWAII-MANOA	19,200	17,406	23,943	23,697	20,629	20,000	24,226	23,925
67	UNIVERSITY OF CINCINNATI	9,657	13,430	16,635	19,486	18,766	20,126	20,403	23,860
68	RUTGERS THE ST UNIV OF NJ	10,272	13,697	14,638	16,316	18,011	17,482	19,647	23,827
69	EMORY UNIVERSITY	12,257	12,921	14,304	16,028	17,374	18,574	20,569	23,621
70	UNIVERSITY OF GEORGIA	10,762	14,258	14,115	17,056	17,045	16,991	22,538	23,165
	TOTAL 1ST 70 INSTITUTIONS	2,044,564	2,499,965	2,871,010	3,088,808	3,341,496	3,440,403	3,826,029	4,300,386
71	BROWN UNIVERSITY	9,988	11,789	13,758	15,680	16,020	18,031	19,790	22,996
72	N C STATE UNIV AT RALEIGH	11,488	11,606	15,696	22,378	16,758	18,158	20,604	22,639
73	UNIV OF ILL CHICAGO	11,525	12,300	16,872	19,519	21,394	20,977	22,460	22,531
74	VIRGINIA COMMONWLTH UNIV	9,415	11,368	14,339	15,605	16,713	16,485	19,856	21,684
75	VA POLYTECH INST & ST U	9,966	14,507	16,204	16,823	16,449	18,680	20,602	21,214
76	UNIV OF MD BALT PROF SCH	15,312	16,592	18,374	17,186	20,414	22,355	18,679	19,943
77	UNIV OF MASS AT AMHERST	10,018	10,975	12,268	14,415	15,131	18,034	18,236	19,563
78	SUNY AT BUFFALO	12,488	13,208	14,576	18,477	16,224	16,123	17,175	19,270
79	UNIV OF CAL SANTA BARBARA	6,728	8,372	8,764	10,946	12,688	13,329	16,895	18,738
80	U TEX HLTH SCI CTR S ANTO	5,781	7,384	9,586	11,153	13,314	14,456	14,392	18,562
	TOTAL 1ST 80 INSTITUTIONS	2,147,273	2,618,066	3,011,447	3,250,990	3,506,601	3,617,031	4,014,718	4,507,526
81	UNIV OF VT & ST AGRIC COL	9,574	12,059	11,869	12,035	11,950	13,000	13,309	18,249
82	UNIVERSITY OF DAYTON	10,690	12,222	14,795	15,314	15,049	17,094	18,175	17,938
83	UNIV OF MISSOURI COLUMBIA	12,519	13,676	16,508	16,467	14,477	15,139	16,939	17,810
84	U TEXAS SYSTEM CANCER CTR	17,060	21,213	17,467	20,345	17,789	15,346	14,693	17,708
85	UTAH STATE UNIVERSITY	7,187	8,015	10,985	9,807	15,412	16,047	16,093	17,416
86	TEMPLE UNIVERSITY	12,434	12,559	12,851	15,368	14,678	14,816	16,100	17,281
87	WASHINGTON STATE UNIV	7,870	8,959	10,154	13,162	12,896	15,262	15,559	16,772
88	UNIVERSITY OF KENTUCKY	10,210	12,067	13,421	13,982	12,875	14,764	14,317	16,268
89	U TEX HLTH SCI CTR HOUSTN	5,584	8,768	12,422	11,282	12,987	13,896	13,703	16,206
90	UNIVERSITY OF KANSAS	14,473	16,227	18,973	21,803	17,205	15,450	15,368	15,869
	TOTAL 1ST 90 INSTITUTIONS	2,254,874	2,743,831	3,150,892	3,400,555	3,651,919	3,767,845	4,168,974	4,679,043
91	UNIVERSITY OF IDAHO	3,034	3,682	3,870	4,507	5,583	4,832	4,987	15,595
92	UNIVERSITY OF WYOMING	5,499	4,930	8,208	5,623	7,541	7,069	11,418	15,349
93	GEORGE WASHINGTON UNIV	13,512	13,028	15,314	13,608	14,503	16,279	17,791	15,122
94	U TENNESSEE KNOXVILLE	13,375	18,545	18,729	20,710	19,933	18,202	14,415	14,949
95	U MASS MED SCHL WORCESTER	2,253	3,599	4,569	5,083	6,529	7,878	10,606	14,767
96	WAKE FOREST UNIVERSITY	5,171	6,042	7,039	8,069	8,528	10,116	10,017	14,660
97	GEORGETOWN UNIVERSITY	12,270	11,609	9,412	13,579	10,327	12,259	20,865	14,463
98	UNIV OF MED & DENT OF N J	6,347	7,658	9,081	8,970	11,115	10,933	11,870	14,349
99	WAYNE STATE UNIVERSITY	10,342	10,495	12,199	11,926	12,582	12,280	15,304	14,282
100	IOWA ST U OF SCI & TECH	7,610	9,079	11,455	10,077	10,396	10,869	11,908	13,384
	TOTAL 1ST 100 INSTITUTIONS	2,334,287	2,832,498	3,250,768	3,502,707	3,758,956	3,878,562	4,298,155	4,825,963

1/ DOES NOT INCLUDE R&D OBLIGATIONS TO UNIVERSITY-ASSOCIATED FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS (FFRDC'S).

NOTE: DATA FOR EACH YEAR REFLECT SUPPORT FROM THE AGENCIES INCLUDED IN THE SURVEY SYSTEM FOR THAT YEAR.

SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 9. -- FEDERAL OBLIGATIONS FOR RESEARCH & DEVELOPMENT TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS BY AGENCY: FY 1984 1/

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED)	TOTAL	USDA	COM	DOD	ED	DOE	EPA	HHS	INT	NASA	NSF	OTHER 2/
	TOTAL, ALL INSTITUTIONS	5,622,768	272,977	73,988	1014,312	43,613	317,065	47,329	2,681,424	32,197	203,846	858,860	77,157
1	JOHNS HOPKINS UNIVERSITY	467,080	188	210	356,048	1,322	2,980	183	90,687	122	7,767	7,588	15
2	MASS INST OF TECHNOLOGY	178,706	520	7,375	34,692	0	44,988	648	39,881	747	11,587	22,489	6,442
3	STANFORD UNIVERSITY	160,274	168	95	37,494	1,179	12,625	480	72,882	212	12,782	22,961	0
4	UNIVERSITY OF WASHINGTON	136,803	773	8,476	21,460	491	6,083	837	73,967	814	2,694	21,190	458
5	COLUMBIA UNIV MAIN DIV	110,089	0	409	9,456	0	4,616	4	67,795	895	2,172	23,274	1,468
6	UNIV OF CAL LOS ANGELES	110,057	427	0	8,470	1,360	9,138	816	71,876	0	3,739	14,831	0
7	CORNELL UNIVERSITY	105,338	7,323	155	7,600	0	2,763	1,226	42,576	677	2,196	40,822	0
8	UNIV OF CAL SAN DIEGO	104,083	185	3,307	17,788	0	2,140	90	45,474	0	9,437	25,662	0
9	UNIV OF WIS-MADISON	99,831	6,929	0	6,684	1,996	9,841	447	50,183	108	5,564	18,379	0
10	HARVARD UNIVERSITY	98,972	50	149	4,461	1,457	3,743	1,414	71,953	72	2,934	12,582	157
	TOTAL 1ST 10 INSTITUTIONS	1,571,203	16,563	20,176	504,153	7,761	98,617	5,812	625,614	3,647	60,872	219,448	8,540
11	YALE UNIVERSITY	97,905	98	0	6,230	0	6,576	106	75,957	0	188	8,750	0
12	UNIVERSITY OF MICHIGAN	95,307	322	2,273	5,670	322	4,588	385	57,476	262	4,862	16,326	2,821
13	UNIV OF PENNSYLVANIA	94,154	313	72	6,579	156	4,956	0	67,186	9	303	14,469	111
14	UNIV OF CAL BERKELEY	85,852	8,514	53	17,847	158	2,094	256	26,399	157	4,861	22,689	2,824
15	UNIV OF CAL SAN FRANCISCO	85,449	0	0	1,539	254	2,036	55	79,371	0	801	1,303	90
16	UNIV OF SOUTHERN CAL	79,617	80	2,044	28,252	0	1,158	347	37,427	159	878	9,272	0
17	UNIVERSITY OF MINNESOTA	72,494	6,399	33	2,767	816	4,305	1,098	53,035	237	1,853	1,951	0
18	UNIV OF ILL URBANA	68,911	5,694	0	9,905	1,824	6,852	1,619	12,966	0	1,798	24,411	3,842
19	UNIVERSITY OF CHICAGO	68,703	170	0	960	0	4,970	0	42,502	0	6,259	13,842	0
20	PENNSYLVANIA STATE UNIV	64,372	6,993	522	20,879	331	2,587	286	18,707	2,414	1,804	8,934	915
	TOTAL 1ST 20 INSTITUTIONS	2,383,967	45,146	25,173	604,781	11,622	138,739	9,964	1,096,640	6,885	84,479	341,395	19,143
21	UNIVERSITY OF COLORADO	62,708	110	4,164	3,692	0	4,307	560	35,052	295	4,219	10,257	52
22	UNIV OF TEXAS AT AUSTIN	62,316	150	0	30,554	1,477	7,759	315	8,682	333	3,185	9,858	3
23	DUKE UNIVERSITY	62,074	171	273	2,001	0	2,234	728	49,081	0	474	7,112	0
24	WASHINGTON UNIVERSITY	61,341	107	0	769	0	945	203	53,119	0	1,952	4,246	0
25	UNIVERSITY OF ROCHESTER	60,157	100	0	3,648	0	9,609	176	39,117	0	144	7,363	0
26	NEW YORK UNIVERSITY	55,028	0	70	3,195	2	6,414	112	39,861	2	407	4,965	0
27	YESHIVA UNIVERSITY	53,077	0	0	87	409	100	0	51,748	0	0	733	0
28	UNIVERSITY OF PITTSBURGH	50,557	0	199	3,732	3,105	1,666	496	34,149	0	1,289	5,921	0
29	CALIFORNIA INST OF TECH	48,589	0	160	6,825	0	5,847	0	9,595	905	6,498	18,759	0
30	UNIV OF NC AT CHAPEL HILL	48,491	86	0	2,356	647	702	2,252	36,550	0	86	5,562	250
	TOTAL 1ST 30 INSTITUTIONS	2,948,305	45,870	30,039	661,640	17,262	178,322	14,806	1,453,594	8,420	102,733	416,171	19,448
31	UNIVERSITY OF IOWA	48,378	191	0	2,718	49	73	351	37,810	0	4,264	2,848	74
32	OHIO STATE UNIVERSITY	48,339	6,083	1,641	5,961	2,144	2,318	555	15,202	468	1,775	8,125	4,067
33	UNIVERSITY OF UTAH	45,427	52	0	4,087	91	3,758	406	28,102	1,425	522	6,984	0
34	CASE WESTERN RESERVE UNIV	43,931	0	0	4,232	86	335	0	30,656	144	2,829	5,649	0
35	UNIVERSITY OF ARIZONA	43,380	2,980	0	4,067	236	1,273	521	17,744	326	4,881	10,062	1,290
36	NORTHWESTERN UNIVERSITY	42,864	0	0	3,690	495	2,198	0	22,815	0	245	10,432	2,989
37	PURDUE UNIVERSITY	41,892	5,582	96	5,292	0	4,236	322	10,740	150	1,869	11,223	2,382
38	MICHIGAN STATE UNIVERSITY	41,205	6,551	99	1,908	1,629	2,605	152	11,711	0	595	14,980	975
39	UNIVERSITY OF FLORIDA	40,847	6,739	61	2,535	48	907	1,212	17,407	344	705	6,449	1,440
40	WOODS HOLE OCNGRPHIC INST	39,705	0	3,120	17,003	0	254	0	0	0	956	18,372	0
	TOTAL 1ST 40 INSTITUTIONS	3,384,273	74,048	35,056	716,133	22,040	196,279	18,325	1,645,781	11,277	121,374	511,295	32,665
41	BAYLOR COL OF MEDICINE	39,340	3,867	0	321	392	0	262	33,613	0	510	375	0
42	BOSTON UNIVERSITY	39,306	0	0	4,206	292	200	0	31,493	13	395	2,707	0
43	GEORGIA INSTITUTE OF TECH	38,460	11	0	29,757	0	991	30	1,408	247	1,252	3,356	1,408
44	UNIV OF MD COLLEGE PARK	38,260	4,243	354	7,742	373	5,433	643	2,832	22	5,025	11,412	181
45	UNIV ALABAMA BIRMINGHAM	37,839	122	0	500	392	0	0	36,233	0	127	465	0
46	UNIV OF CAL DAVIS	37,586	2,788	0	949	284	3,755	126	18,493	183	297	6,066	4,645
47	OREGON STATE UNIVERSITY	37,499	7,046	5,059	6,338	0	280	921	4,991	800	412	10,482	1,170
48	VANDERBILT UNIVERSITY	35,338	0	0	923	603	390	53	30,882	39	209	2,209	30
49	INDIANA UNIVERSITY	35,123	110	77	836	0	2,048	193	19,984	0	280	11,484	111
50	UNIVERSITY OF NEW MEXICO	33,842	46	75	21,310	12	1,975	0	8,112	7	576	1,729	0
	TOTAL 1ST 50 INSTITUTIONS	3,756,866	92,281	40,621	789,015	24,388	211,351	20,553	1,833,822	12,588	130,457	561,580	40,210

SEE FOOTNOTES AT END OF TABLE.

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TABLE 9. -- FEDERAL OBLIGATIONS FOR RESEARCH & DEVELOPMENT TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS BY AGENCY: FY 1984 1/

- CONTINUED

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED)	TOTAL	USDA	COM	DOD	ED	DOE	EPA	HHS	INT	NASA	NSF	OTHER 2/
51	U TEX HLTH SCI CTR DALLAS	32,949	0	0	0	0	0	0	31,507	0	987	455	0
52	TEXAS A & M UNIVERSITY	31,072	11,156	25	4,085	0	2,599	442	4,214	145	1,824	5,765	817
53	UNIVERSITY OF VIRGINIA	30,279	197	278	1,465	991	2,887	0	19,275	47	891	4,213	35
54	SUNY AT STONY BROOK	29,770	0	0	956	10	2,675	0	15,331	20	597	10,181	0
55	ROCKEFELLER UNIVERSITY	29,484	0	0	642	0	1,018	185	25,400	0	141	2,098	0
56	PRINCETON UNIVERSITY	28,783	0	689	4,034	0	3,349	0	6,136	0	1,920	12,470	185
57	UNIVERSITY OF CONNECTICUT	28,060	1,156	898	851	66	724	52	21,359	111	342	2,501	0
58	TUFTS UNIVERSITY	27,995	7,896	0	335	0	835	2,069	16,120	0	108	632	0
59	UNIVERSITY OF MIAMI	27,880	0	52	3,975	49	220	31	17,090	0	551	5,912	0
60	CARNEGIE-MELLON UNIV	27,650	0	140	11,483	58	3,411	0	3,960	504	656	7,338	100
	TOTAL 1ST 60 INSTITUTIONS	4,050,788	112,686	42,703	816,841	25,562	229,069	23,332	1,994,214	13,415	138,474	613,145	41,347
61	UNIV OF CAL IRVINE	26,798	147	0	3,187	0	3,188	106	14,441	0	643	4,893	193
62	CUNY MT SINAI SCH OF MED	26,796	0	0	0	0	73	93	26,128	0	0	502	0
63	NEW MEXICO STATE UNIV	26,660	1,630	0	20,226	294	200	0	424	124	2,575	1,187	0
64	LOUISIANA STATE UNIV	25,944	3,716	50	2,031	0	1,220	1,010	14,472	846	164	2,435	0
65	COLORADO STATE UNIVERSITY	25,002	4,669	2,188	2,673	0	1,100	502	5,137	1,082	940	6,684	27
66	UNIV OF HAWAII-MANOA	23,925	2,431	1,374	2,336	0	1,449	350	5,354	0	3,932	4,649	2,050
67	UNIVERSITY OF CINCINNATI	23,860	0	0	1,680	0	273	745	18,392	0	675	2,095	0
68	RUTGERS THE ST UNIV OF NJ	23,827	2,816	169	5,510	0	319	0	7,708	627	120	6,558	0
69	EMORY UNIVERSITY	23,621	0	0	258	403	80	95	21,258	0	312	1,215	0
70	UNIVERSITY OF GEORGIA	23,165	5,464	2,193	900	10	5,361	257	3,986	81	54	4,843	16
	TOTAL 1ST 70 INSTITUTIONS	4,300,386	133,559	48,677	855,642	26,269	242,332	26,490	2,111,514	16,175	147,889	648,[illegible]	43,633
71	BROWN UNIVERSITY	22,996	0	204	3,145	0	2,711	0	6,904	80	883	9,[illegible]	[illegible]3
72	N C STATE UNIV AT RALEIGH	22,639	7,303	25	3,338	0	690	962	3,202	24	1,033	3,73[illegible]	2,328
73	UNIV OF ILL CHICAGO	22,531	47	188	2,319	15	1,428	90	16,771	0	75	1,598	0
74	VIRGINIA COMMONWLTH UNIV	21,684	0	0	578	357	0	49	19,464	0	791	445	0
75	VA POLYTECH INST & ST U	21,214	4,743	0	4,156	4	2,516	165	1,753	1,174	2,221	4,034	448
76	UNIV OF MD BALT PROF SCH	19,943	62	0	1,879	0	298	256	16,596	0	12	840	0
77	UNIV OF MASS AT AMHERST	19,563	2,620	60	4,250	0	651	0	3,852	102	466	7,562	0
78	SUNY AT BUFFALO	19,270	0	0	964	0	145	0	14,428	0	521	3,212	0
79	UNIV OF CAL SANTA BARBARA	18,738	85	0	2,587	276	1,806	25	3,770	17	1,146	9,026	0
80	U TEX HLTH SCI CTR S ANTO	18,562	0	0	0	0	0	75	17,888	0	84	515	0
	TOTAL 1ST 80 INSTITUTIONS	4,507,526	148,419	49,154	878,858	26,921	252,577	28,112	2,216,142	17,572	155,121	688,178	46,472
81	UNIV OF VT & ST AGRIC COL	18,249	1,654	0	319	603	0	0	14,837	0	146	690	0
82	UNIVERSITY OF DAYTON	17,938	0	45	17,070	0	0	369	0	0	378	76	0
83	UNIV OF MISSOURI COLUMBIA	17,810	6,183	0	1,019	23	409	223	8,284	366	224	1,079	0
84	U TEXAS SYSTEM CANCER CTR	17,708	0	0	0	0	0	0	17,708	0	0	0	0
85	UTAH STATE UNIVERSITY	17,416	2,276	0	9,694	706	70	525	262	300	2,019	1,564	0
86	TEMPLE UNIVERSITY	17,281	0	3	290	0	424	141	14,759	0	15	1,649	0
87	WASHINGTON STATE UNIV	16,772	6,400	276	1,584	0	558	75	3,750	75	22	3,147	885
88	UNIVERSITY OF KENTUCKY	16,268	5,532	50	713	0	788	472	6,183	733	12	1,754	31
89	U TEX HLTH SCI CTR HOUSTN	16,206	0	0	464	0	349	89	14,455	0	186	663	0
90	UNIVERSITY OF KANSAS	15,869	0	203	909	826	465	0	10,523	91	1,080	1,630	142
	TOTAL 1ST 90 INSTITUTIONS	4,679,043	170,464	49,731	910,920	29,079	255,640	30,006	2,306,903	19,137	159,203	700,430	47,530
91	UNIVERSITY OF IDAHO	15,595	3,915	21	133	124	73	142	336	727	86	338	9,700
92	UNIVERSITY OF WYOMING	15,349	1,571	0	455	0	9,408	74	941	941	433	1,526	0
93	GEORGE WASHINGTON UNIV	15,122	295	141	2,703	734	316	0	7,828	19	1,876	1,150	60
94	U TENNESSEE KNOXVILLE	14,949	5,089	0	1,306	58	1,646	204	3,390	308	880	2,068	0
95	U MASS MED SCHL WORCESTER	14,767	0	0	395	0	104	0	13,755	0	0	513	0
96	WAKE FOREST UNIVERSITY	14,660	0	0	0	0	0	92	13,806	0	275	487	0
97	GEORGETOWN UNIVERSITY	14,463	837	54	2,231	0	0	18	10,397	0	0	903	23
98	UNIV OF MED & DENT OF N J	14,349	0	0	232	0	0	135	13,444	0	0	538	0
99	WAYNE STATE UNIVERSITY	14,282	0	0	835	0	233	0	10,747	0	33	2,161	273
100	IOWA ST U OF SCI & TECH	13,384	6,397	65	1,112	0	240	33	1,936	452	238	2,489	422
	TOTAL 1ST 100 INSTITUTIONS	4,825,963	188,568	50,012	920,322	29,995	267,660	30,704	2,383,483	21,584	163,024	712,603	58,008

1/ DOES NOT INCLUDE R&D OBLIGATIONS TO UNIVERSITY-ASSOCIATED FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS (FFRDC'S).

2/ INCLUDES DOT, AID, HUD, LABOR, AND NRC.

SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 10. -- FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES FOR RESEARCH AND DEVELOPMENT BY GEOGRAPHIC DIVISION AND STATE: FY 1977-84

(DOLLARS IN THOUSANDS)

GEOGRAPHIC DIVISION AND STATE	1977	1978	1979	1980	1981	1982	1983	1984
UNITED STATES, TOTAL	2,803,017	3,385,770	3,873,514	4,159,857	4,410,199	4,553,755	5,023,677	5,622,768
NEW ENGLAND, TOTAL	326,518	390,340	420,133	486,294	514,219	546,699	614,331	666,700
CONNECTICUT	61,517	70,791	83,995	90,055	97,599	106,116	116,971	128,786
MAINE	4,342	3,809	3,837	4,769	5,316	5,409	6,476	7,999
MASSACHUSETTS	220,106	269,962	279,697	332,727	354,577	373,011	424,213	453,875
NEW HAMPSHIRE	11,384	13,284	14,917	17,780	17,283	16,998	19,436	22,409
RHODE ISLAND	19,482	20,377	29,746	28,742	27,351	32,156	33,879	35,219
VERMONT	9,687	12,147	11,941	12,221	12,093	13,049	13,356	18,412
MIDDLE ATLANTIC, TOTAL	484,946	568,481	638,048	702,123	715,602	758,311	863,889	941,678
NEW JERSEY	36,896	42,013	46,876	50,648	56,744	56,207	61,998	71,131
NEW YORK	310,355	350,086	395,221	437,185	435,024	465,860	527,872	581,251
PENNSYLVANIA	137,695	176,382	195,951	214,290	223,834	236,244	274,019	289,296
EAST NORTH CENTRAL, TOTAL	415,061	474,778	528,883	580,990	612,214	629,295	682,781	747,405
ILLINOIS	130,824	146,323	160,232	173,627	180,144	190,913	209,434	226,377
INDIANA	48,657	55,440	59,515	71,328	79,076	76,181	77,043	87,369
MICHIGAN	87,420	95,893	107,714	117,877	125,585	133,673	144,557	157,889
OHIO	75,101	94,920	107,377	117,652	124,217	129,207	138,882	148,999
WISCONSIN	73,059	82,202	94,045	100,506	103,192	99,321	112,865	126,771
WEST NORTH CENTRAL, TOTAL	179,784	204,373	247,065	260,979	256,643	261,280	267,621	297,622
IOWA	29,317	33,837	44,958	45,287	46,221	47,898	53,229	61,933
KANSAS	20,119	23,635	28,960	30,259	26,101	24,678	24,765	25,845
MINNESOTA	50,424	60,309	65,228	76,527	72,489	79,582	74,279	73,721
MISSOURI	59,685	66,014	76,908	80,172	80,979	80,978	86,389	94,072
NEBRASKA	12,274	12,423	19,909	14,863	15,871	15,572	14,714	23,816
NORTH DAKOTA	5,184	4,530	7,347	9,371	10,318	7,685	10,031	13,534
SOUTH DAKOTA	2,781	3,625	3,755	4,500	4,664	4,887	4,214	4,701
SOUTH ATLANTIC, TOTAL	365,991	556,726	687,809	684,057	833,984	816,790	884,122	1,053,157
DELAWARE	7,047	7,521	9,137	8,938	8,602	8,191	9,230	10,123
DISTRICT OF COLUMBIA	37,165	36,483	34,539	38,844	37,183	42,472	54,379	46,096
FLORIDA	57,642	65,639	67,213	69,501	78,868	84,924	90,328	91,555
GEORGIA	47,328	55,914	61,638	70,763	78,265	90,891	101,043	98,665
MARYLAND	87,044	236,258	317,361	286,887	414,547	366,789	377,480	532,841
NORTH CAROLINA	71,261	82,672	111,071	115,678	121,701	125,749	141,393	155,208
SOUTH CAROLINA	11,877	14,549	18,341	21,341	22,387	21,801	23,900	24,424
VIRGINIA	41,077	50,476	60,050	63,167	64,336	67,678	77,653	83,170
WEST VIRGINIA	5,550	7,214	8,459	8,938	8,095	8,295	8,716	11,075
EAST SOUTH CENTRAL, TOTAL	96,630	111,405	131,785	135,498	140,092	142,906	158,205	165,738
ALABAMA	30,601	34,695	41,257	44,264	46,269	45,746	53,565	60,489
KENTUCKY	14,389	16,518	18,755	19,409	18,679	20,526	19,211	21,281
MISSISSIPPI	10,700	11,633	19,056	14,570	15,842	18,207	18,659	18,103
TENNESSEE	40,940	48,559	52,717	57,255	59,302	58,427	66,770	65,865
WEST SOUTH CENTRAL, TOTAL	187,302	235,470	252,257	277,213	287,594	300,567	318,708	356,507
ARKANSAS	7,114	11,774	8,569	8,878	9,213	11,112	10,611	11,935
LOUISIANA	20,945	24,648	27,064	31,182	31,015	34,475	36,213	40,098
OKLAHOMA	14,830	16,933	16,155	21,902	18,606	22,795	21,429	24,010
TEXAS	144,413	182,115	200,469	215,251	228,760	232,185	250,655	280,464
MOUNTAIN, TOTAL	164,765	191,002	210,529	218,781	234,379	253,635	276,696	328,684
ARIZONA	28,641	30,832	35,947	41,648	42,873	43,431	49,004	54,295
COLORADO	55,678	63,233	67,030	77,876	76,974	77,139	83,570	97,761
IDAHO	3,165	4,119	4,178	4,725	5,746	4,834	5,211	15,765
MONTANA	5,731	6,280	6,595	6,609	5,947	7,445	6,823	7,014
NEVADA	3,061	3,660	4,852	4,880	6,643	7,644	7,875	7,299
NEW MEXICO	29,354	38,880	34,460	33,632	33,661	47,944	53,631	65,427
UTAH	33,636	39,063	49,250	43,788	54,993	58,129	59,164	65,774
WYOMING	5,499	4,935	8,217	5,623	7,542	7,069	11,418	15,349
PACIFIC, TOTAL	572,537	643,817	747,212	803,885	804,596	832,685	945,486	1,055,013
ALASKA	18,439	22,727	22,036	18,734	14,902	11,206	8,196	10,611
CALIFORNIA	416,613	471,492	553,577	588,448	602,891	627,600	723,896	792,770
HAWAII	19,442	25,037	28,070	29,990	24,048	24,493	25,860	24,691
OREGON	39,328	37,660	43,768	51,372	49,092	55,685	56,810	72,618
WASHINGTON	78,715	86,901	99,761	115,341	113,663	113,701	130,724	154,323
OUTLYING AREAS, TOTAL	9,483	9,378	9,793	10,037	10,876	11,587	11,838	10,264
GUAM	599	557	628	679	738	987	1,080	1,038
PUERTO RICO	8,250	8,118	8,377	8,708	9,260	8,576	8,496	8,337
AMERICAN SAMOA	55	0	0	0	0	555	584	200
VIRGIN ISLANDS	579	703	758	650	878	890	1,067	599
TRUST TERRITORY PAC ISL	0	0	30	0	0	579	611	90

NOTE: DATA FOR EACH YEAR REFLECT SUPPORT FROM THE AGENCIES INCLUDED IN THE SURVEY SYSTEM FOR THAT YEAR.

SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 11. -- FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES FOR RESEARCH AND DEVELOPMENT BY DETAILED FIELD: FY 1977-84

(DOLLARS IN THOUSANDS)

FIELD OF SCIENCE/ENGINEERING	1977	1978	1979	1980	1981	1982	1983	1984
TOTAL, ALL FIELDS	2,803,017	3,385,770	3,873,514	4,159,857	4,410,199	4,553,755	5,023,677	5,622,768
ENGINEERING, TOTAL	265,840	503,686	574,747	612,456	792,223	804,054	913,604	1,032,698
AERONAUTICAL	13,053	20,840	24,883	28,044	31,056	35,530	39,765	40,678
ASTRONAUTICAL	1,674	849	3,720	4,634	4,875	8,569	16,373	12,405
CHEMICAL	31,065	41,624	20,866	22,210	27,667	30,274	37,685	50,177
CIVIL	25,018	37,227	37,521	48,130	58,300	38,745	52,231	55,820
ELECTRICAL	45,449	76,337	82,158	86,916	115,011	139,442	170,381	161,092
MECHANICAL	22,109	25,156	26,013	42,593	37,954	37,836	42,577	45,588
METALLURGY & MATERIALS	35,577	40,681	36,899	63,057	52,815	63,998	66,146	74,997
ENGINEERING, NEC	91,895	260,972	342,687	316,872	464,545	449,660	488,446	591,941
ALL SCIENCES, TOTAL	2,537,177	2,882,084	3,298,767	3,547,401	3,617,976	3,749,701	4,110,073	4,590,070
PHYSICAL SCIENCES, TOTAL	401,211	445,482	462,867	507,884	500,657	563,440	621,410	714,146
ASTRONOMY	32,427	37,864	45,036	52,736	54,835	54,001	62,278	77,965
CHEMISTRY	123,744	139,507	155,806	170,048	165,189	183,231	192,171	229,391
PHYSICS	198,591	231,405	224,197	249,661	250,342	284,711	325,998	359,412
PHYSICAL SCIENCES, NEC	46,449	36,706	37,828	35,439	30,291	41,497	40,963	47,378
MATHEMATICAL SCIENCES	48,872	42,781	42,518	55,432	56,300	57,687	64,813	74,489
COMPUTER SCIENCES	26,671	34,856	29,091	36,140	34,861	44,844	52,727	58,075
ENVIRONMENTAL SCIENCES, TOTAL	302,645	304,116	339,821	379,453	330,079	344,313	372,236	397,016
ATMOSPHERIC SCIENCES	88,304	85,496	91,222	86,486	95,112	94,463	103,851	113,976
GEOLOGICAL SCIENCES	107,031	116,077	118,176	109,523	101,207	101,005	101,570	100,387
OCEANOGRAPHY	55,908	57,279	74,789	92,079	91,863	102,340	120,448	135,662
ENVIRONMENTAL SCIENCES, NEC	51,402	45,264	55,634	91,365	41,897	46,505	46,367	46,991
LIFE SCIENCES, TOTAL	N/A	N/A	2,016,524	2,137,751	2,290,587	2,380,991	2,617,274	2,931,805
BIOLOGICAL (EXCL. ENV. BIO.)	N/A	N/A	1,054,787	1,085,602	1,192,756	1,201,934	1,339,982	1,548,345
ENVIRONMENTAL BIOLOGY	N/A	N/A	15,564	13,137	14,636	6,448	8,073	80,540
AGRICULTURAL	231,926	0	102,251	111,739	134,660	162,192	170,180	158,169
MEDICAL	779,667	711,002	801,172	885,898	904,963	969,253	1,050,458	1,120,032
LIFE SCIENCES, NEC	32,398	30,934	42,750	41,375	43,379	41,164	48,581	24,719
PSYCHOLOGY, TOTAL	57,235	71,891	91,357	86,459	87,734	84,406	93,849	109,582
BIOLOGICAL ASPECTS	19,715	22,816	25,164	28,269	26,273	24,735	24,760	33,538
SOCIAL ASPECTS	21,318	27,457	30,600	31,129	28,846	25,166	27,787	30,168
PSYCHOLOGY, NEC	16,202	21,618	35,593	27,061	32,615	34,505	41,302	45,876
SOCIAL SCIENCES, TOTAL	134,020	184,729	207,258	203,948	197,695	134,323	175,127	162,205
ANTHROPOLOGY	5,882	7,432	7,115	7,757	5,543	11,994	12,678	5,503
ECONOMICS	21,581	52,748	52,239	51,414	56,704	52,382	52,756	37,485
HISTORY	1,017	1,426	1,451	1,688	1,069	3,200	4,623	963
LINGUISTICS	2,300	2,261	2,462	2,997	2,745	3,629	3,419	2,967
POLITICAL SCIENCE	3,837	4,861	8,063	5,890	5,122	10,681	17,149	7,839
SOCIOLOGY	27,457	39,951	32,217	34,903	38,136	21,142	29,890	33,362
SOCIAL SCIENCES, NEC	71,946	76,050	103,711	99,299	88,376	31,295	54,612	74,086
OTHER SCIENCES, NEC	78,368	79,126	109,331	140,334	120,063	139,697	112,637	142,752

NOTE: DATA FOR EACH YEAR REFLECT SUPPORT FROM THE AGENCIES INCLUDED IN THE SURVEY SYSTEM FOR THAT YEAR.

SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 12. -- FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES BY AGENCY AND TYPE OF ACTIVITY: FY 1984

(DOLLARS IN THOUSANDS)

AGENCY	TOTAL OBLIGATIONS	ACADEMIC SCIENCE/ENGINEERING							NON-SCIENCE/ ENGINEERING ACTIVITIES
		TOTAL ACADEMIC SCI/ENG	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL FOR INSTR IN SCI & ENG	FELLOWSHIPS, TRAINEESHIPS, TRAINING GRANTS	GENERAL SUPPORT SCI/ENG	OTHER SCI/ENG ACTIVITIES	
TOTAL	10,103,067	6,441,266	5,622,768	49,764	1,889	259,037	112,588	395,220	3,661,801
DEPARTMENT OF AGRICULTURE	611,624	607,432	272,977	9,599	0	158	0	324,698	4,192
DEPARTMENT OF COMMERCE	104,426	104,214	73,988	0	1,559	141	20,289	8,237	212
DEPARTMENT OF DEFENSE, TOTAL	1,047,376	1,036,245	1,014,312	0	330	0	3,685	17,918	11,131
ARMY	143,104	138,154	126,833	0	330	0	3,340	7,651	4,950
NAVY	649,665	645,177	640,958	0	0	0	236	3,983	4,488
AIR FORCE	204,998	203,714	198,012	0	0	0	109	5,593	1,284
OTHER DOD	49,609	49,200	48,509	0	0	0	0	691	409
DEPARTMENT OF EDUCATION	3,517,059	108,686	43,613	0	0	65,073	0	0	3,408,373
DEPARTMENT OF ENERGY	354,627	348,403	317,065	29,453	0	613	553	719	6,224
ENVIRONMENTAL PROTECTION AGENCY	52,897	51,897	47,329	66	0	1,834	2,658	10	1,000
DEPARTMENT OF HEALTH & HUMAN SERVICES	3,148,355	2,934,093	2,681,424	700	0	164,634	83,878	3,457	214,262
NATIONAL INSTITUTES OF HEALTH	2,716,008	2,716,008	2,479,368	700	0	148,605	83,878	3,457	0
HEALTH RESOURCES AND SERVICES ADMINISTRATION	193,033	10,443	10,443	0	0	0	0	0	182,590
ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION	186,360	170,922	155,305	0	0	15,617	0	0	15,438
CENTER FOR DISEASE CONTROL	20,117	7,534	7,534	0	0	0	0	0	12,583
FOOD AND DRUG ADMINISTRATION	5,465	5,465	5,465	0	0	0	0	0	0
OFFICE OF HUMAN DEVELOPMENT SERVICES	6,472	6,472	6,060	0	0	412	0	0	0
HEALTH CARE FINANCING ADMINISTRATION	7,803	7,803	7,803	0	0	0	0	0	0
SOCIAL SECURITY ADMINISTRATION	1,017	783	783	0	0	0	0	0	234
OFFICE OF THE ASSISTANT SECRETARY FOR HEALTH	11,036	7,619	7,619	0	0	0	0	0	3,417
OTHER DHHS	1,044	1,044	1,044	0	0	0	0	0	0
DEPARTMENT OF HOUSING AND URBAN DEV	429	209	209	0	0	0	0	0	220
DEPARTMENT OF THE INTERIOR	45,741	32,197	32,197	0	0	0	0	0	13,544
AGENCY FOR INTERNATIONAL DEVELOPMENT	56,113	56,113	56,113	0	0	0	0	0	0
DEPARTMENT OF LABOR	4,222	3,132	3,112	0	0	0	0	20	1,090
NATIONAL AERONAUTICS AND SPACE ADMIN	216,575	216,575	203,846	250	0	5,342	0	7,137	0
NATIONAL SCIENCE FOUNDATION	923,937	923,937	858,860	9,696	0	20,832	1,525	33,024	0
NUCLEAR REGULATORY COMMISSION	4,880	4,560	4,560	0	0	0	0	0	320
DEPARTMENT OF TRANSPORTATION	14,806	13,573	13,163	0	0	410	0	0	1,233

SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 13. -- FEDERAL OBLIGATIONS TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS BY TYPE OF ACTIVITY: FY 1984

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY TOTAL FEDERAL OBLIGATIONS)	TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE/ENGINEERING							
			TOTAL ACADEMIC SCI/ENG	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL FOR INSTR IN S&E	FELLOWSHIPS TRAINEESHIPS TRNG GRANTS	GENERAL SUPPORT SCI/ENG	OTHER SCI/ENG	NON-SCI/ENG
	TOTAL, ALL INSTITUTIONS	10,103,067	6,441,266	5,622,768	49,764	1,889	259,037	112,588	395,220	3,661,801
1	JOHNS HOPKINS UNIVERSITY	483,149	475,978	467,050	68	0	7,563	1,174	123	7,171
2	MASS INST OF TECHNOLOGY	195,255	190,765	178,706	5,023	0	6,118	619	299	4,490
3	HOWARD UNIVERSITY	180,733	12,637	8,807	0	0	1,584	2,226	20	168,096
4	STANFORD UNIVERSITY	179,149	172,927	160,274	3,194	0	8,542	496	421	6,222
5	UNIVERSITY OF WASHINGTON	171,963	153,457	136,803	4,314	0	6,623	3,430	2,287	18,506
6	CORNELL UNIVERSITY	132,886	122,833	105,338	428	0	3,764	1,211	12,092	10,053
7	UNIV OF CAL LOS ANGELES	132,382	117,548	110,057	866	330	4,745	1,550	0	14,834
8	COLUMBIA UNIV MAIN DIV	129,054	117,325	110,089	796	0	4,997	1,071	372	11,729
9	UNIV OF WIS-MADISON	122,577	118,203	99,831	1,204	0	4,557	786	11,825	4,374
10	HARVARD UNIVERSITY	120,891	111,667	98,972	725	0	10,029	1,639	302	9,224
	TOTAL 1ST 10 INSTITUTIONS	1,848,039	1,593,340	1,475,927	16,618	330	58,522	14,202	27,741	254,699
11	YALE UNIVERSITY	118,641	111,830	97,905	4,380	0	7,851	1,161	533	6,811
12	UNIV OF CAL SAN DIEGO	116,587	110,887	104,083	324	0	4,452	1,567	461	5,700
13	UNIVERSITY OF MICHIGAN	116,566	102,247	95,307	605	0	4,704	975	656	14,319
14	UNIV OF PENNSYLVANIA	114,865	101,791	94,154	364	0	5,697	1,302	274	13,074
15	UNIVERSITY OF MINNESOTA	106,239	85,692	72,494	0	0	3,741	605	8,852	20,547
16	UNIV OF CAL BERKELEY	104,518	91,996	85,852	48	0	5,141	463	492	12,522
17	PENNSYLVANIA STATE UNIV	100,189	78,295	64,372	0	0	1,195	637	12,091	21,894
18	UNIV OF CAL SAN FRANCISCO	97,959	92,387	85,449	150	0	5,375	959	454	5,572
19	UNIV OF SOUTHERN CAL	97,476	85,601	79,617	104	0	1,125	419	4,336	11,875
20	UNIV OF ILL URBANA	84,873	84,347	68,911	426	0	1,636	1,069	12,305	526
	TOTAL 1ST 20 INSTITUTIONS	2,905,952	2,538,413	2,324,071	23,019	330	99,439	23,359	68,195	367,539
21	UNIVERSITY OF COLORADO	80,075	68,070	62,708	0	0	2,991	748	1,623	12,005
22	OHIO STATE UNIVERSITY	79,524	62,476	48,339	100	0	1,171	600	12,266	17,048
23	UNIVERSITY OF CHICAGO	79,112	75,204	68,703	0	0	5,504	501	496	3,908
24	DUKE UNIVERSITY	72,234	67,795	62,074	185	0	4,454	476	606	4,439
25	WASHINGTON UNIVERSITY	71,421	67,220	61,341	0	0	4,840	963	76	4,201
26	UNIVERSITY OF ROCHESTER	70,238	66,114	60,157	2,483	0	2,598	777	99	4,124
27	NEW YORK UNIVERSITY	69,904	59,071	55,028	300	0	2,961	472	310	10,833
28	UNIV OF TEXAS AT AUSTIN	69,028	65,071	62,316	509	0	1,135	478	633	3,957
29	MICHIGAN STATE UNIVERSITY	68,541	52,838	41,205	250	0	1,288	453	9,642	15,703
30	PURDUE UNIVERSITY	65,750	54,655	41,892	2,110	0	929	550	9,174	11,095
	TOTAL 1ST 30 INSTITUTIONS	3,631,779	3,176,927	2,887,834	28,956	330	127,310	29,377	103,120	454,852
31	UNIVERSITY OF PITTSBURGH	65,019	54,167	50,557	233	0	2,477	850	50	10,852
32	UNIVERSITY OF FLORIDA	64,490	50,122	40,847	0	0	1,490	362	7,423	14,368
33	UNIV OF NC AT CHAPEL HILL	64,344	55,248	48,491	66	0	5,074	1,582	35	9,096
34	UNIVERSITY OF IOWA	61,244	51,946	48,378	0	0	2,365	554	649	9,298
35	INDIANA UNIVERSITY	60,298	38,803	35,123	2,000	0	1,021	568	91	21,495
36	YESHIVA UNIVERSITY	60,096	56,889	53,077	0	0	3,427	385	0	3,207
37	UNIVERSITY OF ARIZONA	59,849	48,543	43,380	200	0	1,570	328	3,065	11,306
38	GALLAUDET COLLEGE	57,378	2,492	2,492	0	0	0	0	0	54,886
39	UNIVERSITY OF UTAH	56,451	47,300	45,427	0	0	1,344	437	92	9,151
40	NORTHWESTERN UNIVERSITY	54,960	45,551	42,864	0	0	2,083	604	0	9,409
	TOTAL 1ST 40 INSTITUTIONS	4,235,908	3,627,988	3,298,470	31,455	330	148,161	35,047	114,525	607,920
41	TEXAS A & M UNIVERSITY	54,488	50,126	31,072	56	0	202	1,878	16,918	4,362
42	BOSTON UNIVERSITY	53,038	41,779	39,306	0	0	1,681	529	263	11,259
43	CALIFORNIA INST OF TECH	51,893	51,893	48,589	266	0	2,080	227	731	0
44	UNIV OF MD COLLEGE PARK	51,517	45,075	38,260	812	0	1,032	61	4,910	6,442
45	CASE WESTERN RESERVE UNIV	51,442	47,243	43,931	75	0	2,542	616	79	4,199
46	INTER AM U PR-SAN GERMAN	51,348	99	0	0	0	99	0	0	51,249
47	UNIV ALABAMA BIRMINGHAM	50,131	40,416	37,839	0	0	1,853	724	0	9,715
48	OREGON STATE UNIVERSITY	49,249	42,484	37,499	302	0	352	220	4,111	6,765
49	UNIV OF CAL DAVIS	47,593	39,459	37,586	175	0	1,077	390	231	8,134
50	GEORGIA INSTITUTE OF TECH	47,356	43,142	38,460	0	0	182	155	4,345	4,214
	TOTAL 1ST 50 INSTITUTIONS	4,743,963	4,029,704	3,651,012	33,141	330	159,261	39,847	146,113	714,259

SEE FOOTNOTES AT END OF TABLE.

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TABLE 13. -- FEDERAL OBLIGATIONS TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS BY TYPE OF ACTIVITY: FY 1984

- CONTINUED

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY TOTAL FEDERAL OBLIGATIONS)	TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE/ENGINEERING							
			TOTAL ACADEMIC SCI/ENG	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL FOR INSTR IN S&E	FELLOWSHIPS TRAINEESHIPS TRNG GRANTS	GENERAL SUPPORT SCI/ENG	OTHER SCI/ENG	NON-SCI/ENG
51	UNIVERSITY OF NEW MEXICO	45,055	36,566	33,842	0	0	899	1,189	636	8,489
52	BAYLOR COL OF MEDICINE	42,454	41,272	39,340	0	0	1,289	587	56	1,182
53	LOUISIANA STATE UNIV	42,092	34,418	25,944	0	0	626	430	7,418	7,674
54	RUTGERS THE ST UNIV OF NJ	42,092	28,285	23,837	0	0	349	408	3,701	13,807
55	VANDERBILT UNIVERSITY	41,307	39,150	38,338	0	0	3,366	418	28	2,157
56	WOODS HOLE OCNGRPHIC INST	41,182	41,182	39,705	1,023	0	18	0	436	0
57	N C STATE UNIV AT RALEIGH	40,740	36,434	22,639	16	0	411	154	13,214	4,306
58	NEW MEXICO STATE UNIV	39,901	31,723	26,660	0	0	444	452	4,167	8,178
59	UNIVERSITY OF GEORGIA	39,723	34,626	23,168	390	0	567	206	10,338	5,097
60	UNIVERSITY OF KENTUCKY	39,429	26,624	16,268	0	0	362	175	9,819	12,805
TOTAL 1ST	60 INSTITUTIONS	5,157,938	4,379,984	3,937,740	34,530	330	167,592	43,866	195,926	777,954
61	UNIVERSITY OF MIAMI	39,423	30,440	27,880	594	0	1,217	400	349	8,983
62	UNIVERSITY OF VIRGINIA	39,256	33,437	30,279	63	0	2,413	682	0	5,819
63	U TEX HLTH SCI CTR DALLAS	38,425	38,294	32,949	0	0	1,537	537	271	3,131
64	UNIVERSITY OF CONNECTICUT	38,136	32,473	28,060	100	0	1,240	619	2,454	5,663
65	UNIVERSITY OF CINCINNATI	37,599	26,726	23,860	0	0	882	1,907	77	10,873
66	UNIV OF MISSOURI COLUMBIA	35,263	27,958	17,810	0	0	587	244	9,317	7,305
67	PRINCETON UNIVERSITY	34,503	31,195	28,783	283	0	1,933	136	60	3,308
68	COLORADO STATE UNIVERSITY	34,473	29,563	25,002	0	0	659	552	3,350	4,910
69	SUNY AT STONY BROOK	34,340	31,821	29,770	0	0	883	661	507	2,519
70	UNIV OF ILL CHICAGO	34,275	23,893	22,531	0	0	1,021	341	0	10,382
TOTAL 1ST	70 INSTITUTIONS	5,523,631	4,682,784	4,204,664	35,570	330	179,964	49,945	212,311	840,847
71	VA POLYTECH INST & ST U	34,107	30,356	21,214	90	0	359	96	8,597	3,751
72	UNIV OF CAL IRVINE	34,000	29,636	26,798	310	0	1,240	741	547	4,364
73	CARNEGIE-MELLON UNIV	33,786	29,189	27,650	124	0	621	304	490	4,597
74	U TENNESSEE KNOXVILLE	33,193	25,790	14,949	123	0	810	113	9,795	7,403
75	ROCHESTER INST TECHNOLOGY	33,173	1,575	1,575	0	0	0	0	0	31,598
76	TUFTS UNIVERSITY	31,568	28,799	27,995	0	0	451	353	0	2,769
77	ROCKEFELLER UNIVERSITY	31,549	31,501	29,484	50	0	1,464	503	0	48
78	IOWA ST U OF SCI & TECH	31,030	22,744	13,384	60	0	287	97	8,916	8,286
79	UNIV OF HAWAII-MANOA	30,748	28,504	23,925	167	0	228	2,083	2,101	2,244
80	EMORY UNIVERSITY	29,951	24,479	23,621	0	0	493	341	24	5,472
TOTAL 1ST	80 INSTITUTIONS	5,846,736	4,935,357	4,415,259	36,494	330	185,917	54,576	242,781	911,379
81	VIRGINIA COMMONWLTH UNIV	29,798	23,663	21,684	0	0	1,489	490	0	6,135
82	CUNY MT SINAI SCH OF MED	29,331	28,054	26,796	0	0	1,007	251	0	1,277
83	TEMPLE UNIVERSITY	29,296	18,659	17,281	0	0	1,094	250	34	10,637
84	BROWN UNIVERSITY	28,134	24,347	22,996	0	0	814	385	152	3,787
85	WASHINGTON STATE UNIV	27,364	21,700	16,772	0	0	282	112	4,534	5,664
86	UNIV OF VT & ST AGRIC COL	27,264	20,956	18,249	0	0	808	200	1,699	6,308
87	UTAH STATE UNIVERSITY	26,867	20,458	17,416	0	0	980	26	2,036	6,409
88	PUERTO RICO JR COL	26,728	173	0	0	0	173	0	0	26,555
89	UNIVERSITY OF OREGON MAIN	26,587	17,508	12,803	0	0	1,266	163	3,276	9,079
90	UNIVERSITY OF KANSAS	26,342	18,312	15,869	0	0	1,515	753	175	8,030
TOTAL 1ST	90 INSTITUTIONS	6,124,447	5,129,187	4,585,125	36,494	330	195,345	57,206	254,687	995,260
91	UNIV OF MASS AT AMHERST	25,880	25,528	19,563	1,914	0	498	96	3,457	352
92	WAYNE STATE UNIVERSITY	25,297	15,944	14,282	0	0	492	1,007	163	9,353
93	UNIV OF CAL SANTA BARBARA	24,874	19,842	18,738	28	0	671	351	54	5,032
94	KANS ST U - AG & APP SCI	24,248	17,913	8,895	0	0	132	60	8,826	6,335
95	UNIV OF MD BALT PROF SCH	23,861	21,216	19,943	0	0	386	421	466	2,645
96	TUSKEGEE INSTITUTE	23,242	6,650	3,021	1,400	0	406	862	961	16,592
97	UNIV OF NEBRASKA-LINCOLN	23,230	15,310	9,605	0	0	546	57	5,102	7,920
98	SUNY AT BUFFALO	23,069	20,585	19,270	0	0	587	728	0	2,484
99	WEST VIRGINIA UNIVERSITY	22,984	15,373	10,120	41	0	590	76	4,546	7,611
100	GEORGETOWN UNIVERSITY	22,859	15,386	14,463	0	0	686	164	73	7,473
TOTAL 1ST	100 INSTITUTIONS	6,363,991	5,302,934	4,723,025	39,877	330	200,339	61,028	278,335	1,061,057

SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 14. -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY FIELD: JANUARY 1978 AND JANUARY 1980-85 1/

FIELD	1978	1980	1981	1982	1983	1984	1985
TOTAL	307,757	324,249	334,580	349,090	358,929	370,479	380,359
ENGINEERS, TOTAL	30,997	33,737	34,905	36,376	37,737	38,744	39,861
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	1,132	1,407	1,262	1,323	1,327	1,436	1,530
CHEMICAL ENGINEERS	1,999	2,352	2,283	2,269	2,410	2,476	2,628
CIVIL ENGINEERS	5,366	5,529	5,781	6,128	6,421	6,389	6,655
ELECTRICAL ENGINEERS	7,199	8,154	8,583	9,057	9,614	10,228	10,798
MECHANICAL ENGINEERS	5,651	6,074	6,323	6,626	6,728	7,090	7,221
OTHER ENGINEERS	9,650	10,221	10,673	10,973	11,237	11,125	11,030
ALL SCIENTISTS, TOTAL	276,760	290,512	299,675	312,714	321,192	331,735	340,498
PHYSICAL SCIENTISTS	32,839	33,554	34,069	34,500	34,778	35,868	36,504
ASTRONOMERS 2/	-	955	1,065	1,199	1,095	1,193	1,339
CHEMISTS	17,664	17,614	18,087	18,062	18,328	18,843	19,051
PHYSICISTS	12,778	13,007	12,914	13,274	13,586	13,939	14,141
OTHER PHYSICAL SCIENTISTS	2,397	1,978	2,003	1,965	1,769	1,893	1,972
ENVIRONMENTAL SCIENTISTS	9,618	9,960	10,183	10,200	10,153	10,603	10,696
ATMOSPHERIC SCIENTISTS	962	943	918	886	1,064	1,033	1,030
EARTH SCIENTISTS	6,987	6,569	6,634	6,677	6,532	6,699	6,675
OCEANOGRAPHERS	1,669	1,663	1,731	1,652	1,687	1,768	1,713
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	785	900	985	870	1,103	1,278
MATHEMATICAL SCIENTISTS	25,993	27,079	28,578	29,882	31,320	32,608	33,069
COMPUTER SCIENTISTS	7,041	8,878	10,408	12,352	14,346	16,273	18,042
LIFE SCIENTISTS	122,956	133,702	137,773	146,264	151,440	156,351	161,730
AGRICULTURAL SCIENTISTS	15,022	15,899	16,128	16,413	16,732	17,095	17,528
BIOLOGICAL SCIENTISTS	43,597	44,803	46,351	46,784	48,084	49,326	50,546
MEDICAL SCIENTISTS	64,337	67,116	68,625	72,839	74,386	76,130	78,674
OTHER LIFE SCIENTISTS 2/	-	5,884	6,669	10,228	12,238	13,800	14,982
PSYCHOLOGISTS	23,752	23,257	23,386	23,711	23,772	23,829	23,784
SOCIAL SCIENTISTS	54,561	54,082	55,278	55,805	55,383	56,203	56,673
ECONOMISTS	14,087	14,672	15,077	15,459	15,571	15,663	15,790
POLITICAL SCIENTISTS	11,352	11,194	11,574	11,836	11,770	11,727	11,754
SOCIOLOGISTS	15,409	14,501	14,688	14,630	14,068	13,874	13,664
OTHER SOCIAL SCIENTISTS	13,713	13,715	13,939	13,880	13,974	14,940	15,465

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 19. -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY TYPE OF INSTITUTION AND STATUS: SELECTED YEARS

TYPE OF INSTITUTION AND STATUS	1967	1969	1971	1973	1975	1978	1980	1982	1983	1984	1985
ALL INSTITUTIONS	212,855	231,786	257,904	264,887	278,919	307,787	334,249	349,090	365,929	370,479	380,289
FULL TIME	170,557	187,082	209,416	216,424	223,336	243,170	264,920	268,280	274,092	280,447	287,595
PART TIME	42,298	44,674	48,488	48,463	55,583	64,617	69,299	80,840	84,837	89,833	92,764
INSTITUTIONS GRANTING:											
DOCTORATE IN S&E	142,676	154,424	171,238	174,474	180,330	200,366	218,021	231,711	236,848	243,314	252,237
FULL TIME	114,446	124,604	140,339	143,393	148,096	164,732	179,778	189,430	193,786	197,278	203,471
PART TIME	28,230	29,820	30,899	31,081	32,234	35,634	38,244	42,291	43,789	46,036	48,766
MASTER'S IN S&E	24,729	29,441	30,080	28,703	34,078	38,628	37,363	39,030	40,665	43,366	44,800
FULL TIME	20,748	25,212	25,597	24,851	27,811	29,394	27,918	28,721	29,730	31,885	32,898
PART TIME	3,981	4,229	4,483	3,852	6,564	9,233	9,447	10,309	10,935	11,480	11,902
BACHELOR'S IN S&E	23,025	21,690	23,198	28,363	27,113	36,222	36,830	38,818	39,449	30,604	29,790
FULL TIME	19,328	17,927	19,623	23,630	22,406	31,168	30,784	31,444	32,219	22,652	22,306
PART TIME	3,697	3,763	3,575	4,743	4,707	5,087	6,046	7,169	7,230	7,952	7,484
OTHER DEGREES 1/	22,425	26,201	33,388	33,347	37,401	42,841	42,036	49,834	52,250	53,196	53,531
FULL TIME	16,035	19,339	23,857	24,560	25,323	24,878	24,216	28,743	29,387	28,821	28,920
PART TIME	6,390	6,862	9,531	8,787	12,078	15,663	15,820	20,771	22,863	24,364	24,612

1/ DATA INCLUDE 2-YEAR INSTITUTIONS AS WELL AS INSTITUTIONS AWARDING DEGREES IN NON-SCIENCE/ENGINEERING FIELDS.
SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 16. — MALE SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS BY STATUS: JANUARY 1980, 1984, AND 1985

FIELD	TOTAL			FULL TIME			PART TIME		
	1980	1984	1985	1980	1984	1985	1980	1984	1985
TOTAL	179,168	193,211	197,572	149,792	158,941	162,013	29,376	34,270	35,559
ENGINEERS, TOTAL	23,642	25,762	26,487	19,862	21,471	21,831	3,780	4,291	4,656
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	1,082	1,021	1,117	924	870	943	158	151	174
CHEMICAL ENGINEERS	1,992	2,098	2,214	1,633	1,776	1,848	359	322	366
CIVIL ENGINEERS	3,675	4,252	4,429	3,083	3,525	3,564	592	727	865
ELECTRICAL ENGINEERS	5,360	6,164	6,561	4,573	5,118	5,357	787	1,046	1,204
MECHANICAL ENGINEERS	3,902	4,337	4,456	3,332	3,639	3,772	570	698	684
OTHER ENGINEERS	7,631	7,890	7,710	6,317	6,543	6,347	1,314	1,347	1,363
ALL SCIENTISTS, TOTAL	155,526	167,449	171,085	129,930	137,470	140,182	25,596	29,979	30,903
PHYSICAL SCIENTISTS	17,407	17,994	18,542	15,490	15,997	16,193	1,917	1,997	2,349
ASTRONOMERS	668	825	918	629	733	796	39	92	122
CHEMISTS	7,984	8,304	8,472	6,958	7,301	7,309	1,026	1,003	1,163
PHYSICISTS	7,624	7,976	8,130	6,978	7,245	7,262	646	731	868
OTHER PHYSICAL SCIENTISTS	1,131	889	1,022	925	718	826	206	171	196
ENVIRONMENTAL SCIENTISTS	6,185	6,463	6,483	5,532	5,763	5,747	653	700	736
ATMOSPHERIC SCIENTISTS	750	817	799	661	706	708	89	111	91
EARTH SCIENTISTS	3,730	3,709	3,779	3,309	3,340	3,396	421	369	383
OCEANOGRAPHERS	1,301	1,303	1,270	1,221	1,208	1,175	80	95	95
OTHER ENVIRONMENTAL SCIENTISTS	404	634	635	341	509	468	63	125	167
MATHEMATICAL SCIENTISTS	9,383	10,258	10,347	8,072	8,452	8,428	1,311	1,806	1,919
COMPUTER SCIENTISTS	3,903	5,803	6,266	3,124	4,473	4,832	779	1,330	1,434
LIFE SCIENTISTS	89,251	97,038	98,930	73,086	77,765	79,851	16,165	19,273	19,079
AGRICULTURAL SCIENTISTS	12,121	12,800	12,931	11,358	12,054	12,067	763	746	864
BIOLOGICAL SCIENTISTS	24,259	25,817	26,396	22,221	23,570	23,925	2,038	2,247	2,471
MEDICAL SCIENTISTS	50,797	55,632	56,727	37,896	40,087	41,652	12,901	15,545	15,075
OTHER LIFE SCIENTISTS	2,074	2,789	2,876	1,611	2,054	2,207	463	735	669
PSYCHOLOGISTS	7,343	7,461	7,630	6,107	6,071	6,120	1,236	1,390	1,510
SOCIAL SCIENTISTS	22,054	22,432	22,887	18,519	18,949	19,011	3,535	3,483	3,876
ECONOMISTS	7,269	7,217	7,374	6,091	6,237	6,271	1,178	980	1,103
POLITICAL SCIENTISTS	4,628	4,685	4,722	3,810	3,912	3,918	818	773	804
SOCIOLOGISTS	4,459	4,080	4,173	3,839	3,538	3,561	620	542	612
OTHER SOCIAL SCIENTISTS	5,698	6,450	6,618	4,779	5,262	5,261	919	1,188	1,357

SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 17. -- FEMALE SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS BY STATUS: JANUARY 1980, 1984, AND 1985

FIELD	TOTAL			FULL TIME			PART TIME		
	1980	1984	1985	1980	1984	1985	1980	1984	1985
TOTAL	38,853	50,103	54,665	29,983	38,337	41,458	8,870	11,766	13,207
ENGINEERS, TOTAL	840	1,320	1,442	606	948	1,054	234	372	388
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	31	22	28	21	14	18	10	8	10
CHEMICAL ENGINEERS	78	128	144	57	98	113	21	30	31
CIVIL ENGINEERS	122	258	281	93	178	196	29	80	85
ELECTRICAL ENGINEERS	121	221	264	98	158	192	23	63	72
MECHANICAL ENGINEERS	99	104	124	77	68	84	22	36	40
OTHER ENGINEERS	389	587	599	260	432	449	129	155	150
ALL SCIENTISTS, TOTAL	38,013	48,783	53,223	29,377	37,389	40,404	8,636	11,394	12,819
PHYSICAL SCIENTISTS	1,832	1,945	2,157	1,283	1,438	1,569	549	507	588
ASTRONOMERS	68	73	85	56	56	62	12	17	23
CHEMISTS	1,248	1,313	1,432	821	949	1,027	427	364	405
PHYSICISTS	364	441	476	293	353	369	71	88	107
OTHER PHYSICAL SCIENTISTS	152	118	164	113	80	111	39	38	53
ENVIRONMENTAL SCIENTISTS	710	894	970	509	638	693	201	256	277
ATMOSPHERIC SCIENTISTS	54	85	87	40	55	58	14	30	29
EARTH SCIENTISTS	360	437	468	261	298	337	99	139	131
OCEANOGRAPHERS	186	269	269	139	226	225	47	43	44
OTHER ENVIRONMENTAL SCIENTISTS	110	103	146	69	59	73	41	44	73
MATHEMATICAL SCIENTISTS	1,700	2,000	2,118	1,084	1,235	1,337	616	765	781
COMPUTER SCIENTISTS	658	1,299	1,567	543	1,022	1,245	115	277	322
LIFE SCIENTISTS	24,337	33,537	36,472	19,634	26,420	28,438	4,703	7,117	8,034
AGRICULTURAL SCIENTISTS	1,377	1,962	2,266	1,191	1,658	1,902	186	304	364
BIOLOGICAL SCIENTISTS	7,126	9,136	9,741	5,937	7,588	7,973	1,189	1,548	1,768
MEDICAL SCIENTISTS	13,390	17,173	18,694	10,517	12,938	14,006	2,873	4,235	4,688
OTHER LIFE SCIENTISTS	2,444	5,266	5,771	1,989	4,236	4,557	455	1,030	1,214
PSYCHOLOGISTS	2,886	3,018	3,383	1,942	2,099	2,292	944	919	1,091
SOCIAL SCIENTISTS	5,890	6,090	6,556	4,382	4,537	4,830	1,508	1,553	1,726
ECONOMISTS	842	900	941	616	707	714	226	193	227
POLITICAL SCIENTISTS	782	866	975	566	647	726	216	219	249
SOCIOLOGISTS	1,904	1,692	1,711	1,381	1,212	1,233	523	480	478
OTHER SOCIAL SCIENTISTS	2,362	2,632	2,929	1,819	1,971	2,157	543	661	772

SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 18. -- SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS BY GEOGRAPHIC DIVISION AND FIELD: JANUARY 1985

DIVISION AND STATE	TOTAL	ENGINEERS	PHYSICAL SCIENTISTS	ENVIRON-MENTAL SCIENTISTS	MATH. & COMPUTER SCIENTISTS	LIFE SCIENTISTS	PSYCHOL-OGISTS	SOCIAL SCIENTISTS
TOTAL	252,237	27,929	20,699	7,453	20,298	135,402	11,013	29,443
NEW ENGLAND	23,646	2,158	2,055	657	1,636	13,745	863	2,532
CONNECTICUT	3,671	195	235	81	196	2,313	200	451
MAINE	476	93	43	49	40	166	24	61
MASSACHUSETTS	16,830	1,617	1,542	378	1,152	9,970	498	1,673
NEW HAMPSHIRE	1,125	97	80	73	90	623	55	107
RHODE ISLAND	924	127	124	69	115	248	54	187
VERMONT	620	29	31	7	43	425	32	53
MIDDLE ATLANTIC	41,477	4,441	3,588	843	3,896	21,263	2,330	5,116
NEW JERSEY	4,660	629	511	128	533	1,789	316	754
NEW YORK	24,787	2,290	2,191	556	2,201	12,975	1,517	3,057
PENNSYLVANIA	12,030	1,522	886	159	1,162	6,499	497	1,305
EAST NORTH CENTRAL	42,263	4,911	3,737	1,196	3,851	21,074	2,218	5,276
ILLINOIS	10,911	1,081	940	303	999	5,492	669	1,427
INDIANA	5,783	797	677	208	673	2,324	374	730
MICHIGAN	8,335	954	771	178	617	4,077	488	1,250
OHIO	11,418	1,485	921	212	1,228	5,816	442	1,314
WISCONSIN	5,816	594	428	295	334	3,365	245	555
WEST NORTH CENTRAL	20,571	2,074	1,122	401	1,334	12,617	810	2,213
IOWA	3,933	484	244	50	312	2,284	112	447
KANSAS	3,241	382	147	86	209	1,770	258	389
MINNESOTA	4,256	307	158	42	177	2,873	124	575
MISSOURI	5,436	463	332	81	347	3,610	158	445
NEBRASKA	1,949	146	113	52	128	1,266	90	154
NORTH DAKOTA	986	163	65	67	103	430	39	119
SOUTH DAKOTA	770	129	63	23	58	384	29	84
SOUTH ATLANTIC	40,145	4,819	3,024	1,059	3,365	21,561	1,322	4,995
DELAWARE	573	100	95	73	64	109	24	108
DISTRICT OF COLUMBIA	4,924	323	247	21	372	3,115	153	693
FLORIDA	6,942	734	359	261	627	3,794	255	912
GEORGIA	4,927	890	414	118	488	2,301	182	534
MARYLAND	7,614	1,385	896	194	553	3,780	152	654
NORTH CAROLINA	6,151	472	369	118	407	3,893	199	693
SOUTH CAROLINA	3,109	259	219	65	343	1,791	110	322
VIRGINIA	4,467	532	367	190	411	2,216	206	545
WEST VIRGINIA	1,438	124	58	19	100	562	41	534
EAST SOUTH CENTRAL	12,797	1,395	794	218	1,119	7,306	543	1,422
ALABAMA	3,650	472	208	46	338	2,042	146	398
KENTUCKY	2,945	275	184	67	269	1,626	148	376
MISSISSIPPI	1,823	179	107	30	153	1,052	64	238
TENNESSEE	4,379	469	295	75	359	2,586	185	410
WEST SOUTH CENTRAL	24,968	2,464	1,690	758	2,056	14,553	815	2,632
ARKANSAS	1,587	98	55	13	63	1,242	19	97
LOUISIANA	5,264	414	261	185	498	3,324	143	439
OKLAHOMA	2,688	437	226	81	227	1,255	68	394
TEXAS	15,429	1,515	1,148	479	1,268	8,732	585	1,702
MOUNTAIN	14,459	2,369	1,701	816	1,473	5,326	804	1,970
ARIZONA	3,312	577	391	184	279	1,071	238	572
COLORADO	2,922	470	514	274	269	782	198	415
IDAHO	774	94	48	32	75	426	30	69
MONTANA	911	106	109	39	95	394	28	140
NEVADA	417	30	38	50	24	212	23	40
NEW MEXICO	2,727	569	221	109	355	981	140	352
UTAH	2,857	450	336	90	303	1,234	124	320
WYOMING	539	73	44	38	73	226	23	62
PACIFIC	29,760	3,133	2,779	1,471	1,411	16,931	1,192	2,843
ALASKA	279	45	10	64	20	86	3	51
CALIFORNIA	21,951	2,374	2,141	905	962	12,735	940	1,894
HAWAII	1,384	66	114	114	66	755	42	227
OREGON	2,781	184	302	195	207	1,464	105	324
WASHINGTON	3,365	464	212	193	156	1,891	102	347
OUTLYING AREAS	2,151	165	209	34	157	1,026	116	444

SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 19. -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES: JANUARY 1984 AND 1985

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1985	1984	1985	1984	1985	1984	1985	1984
TOTAL, ALL INSTITUTIONS	380,359	370,479	287,595	280,647	92,764	89,833	323,879	316,846
1 HARVARD UNIVERSITY	7,485	7,085	4,989	4,716	2,496	2,369	6,467	6,193
2 UNIV OF WIS-MADISON	3,936	3,830	3,247	3,121	689	709	3,632	3,524
3 JOHNS HOPKINS UNIVERSITY	3,860	3,633	3,629	3,405	231	228	3,781	3,499
4 OHIO STATE UNIVERSITY	3,745	3,584	2,872	2,757	873	829	3,410	3,276
5 LOUISIANA STATE UNIV	3,576	3,282	3,026	2,749	550	533	3,103	2,865
6 UNIVERSITY OF MINNESOTA	3,431	3,440	2,919	2,965	512	475	2,883	2,900
7 UNIVERSITY OF MICHIGAN	3,337	3,057	2,634	2,414	703	643	2,821	2,690
8 UNIV OF CAL LOS ANGELES	2,978	2,972	2,115	2,133	863	839	2,538	2,524
9 UNIVERSITY OF FLORIDA	2,691	2,543	2,494	2,385	198	177	2,672E	2,488
10 CORNELL UNIVERSITY	2,619	2,617	2,440	2,442	179	175	2,537I	2,540
TOTAL, 1ST 10 INSTS.	37,654	36,064	30,367	29,087	7,287	6,977	33,716	32,468
11 UNIVERSITY OF WASHINGTON	2,584	2,411	1,928	1,854	656	557	2,254	2,136
12 SUNY AT BUFFALO	2,518	2,290E	1,437	1,300E	1,081	950E	1,743	1,795I
13 COLUMBIA UNIV MAIN DIV	2,504	2,385	2,048	1,955	456	430	2,199	2,098
14 UNIVERSITY OF PITTSBURGH	2,497	2,346	2,104	1,968	393	378	2,239	2,110
15 PENNSYLVANIA STATE UNIV	2,497	2,427	2,157	2,128	340	302	2,284	2,235
16 UNIV OF ILL URBANA	2,483	2,447	2,173	2,175	310	272	2,075	2,323
17 INDIANA UNIVERSITY	2,454	2,483	1,661	1,703	793	780	1,822	1,877
18 PURDUE UNIVERSITY	2,443	2,416	2,083	2,027	360	389	2,219E	2,185
19 MASS INST OF TECHNOLOGY	2,436	2,456E	2,195	2,200E	241	256E	2,315	2,330E
20 TEXAS A & M UNIVERSITY	2,430	2,418	2,430	2,418	0	0	2,430	2,418
TOTAL, 1ST 20 INSTS.	62,500	60,103	50,583	48,812	11,917	11,291	55,298	53,977
21 UNIV OF CAL BERKELEY	2,386	2,352	1,548	1,552	838	800	1,912	1,914
22 UNIV OF CAL SAN FRANCISCO	2,369	2,276	1,485	1,450	884	826	1,935	1,863
23 UNIV OF CAL DAVIS	2,316	2,197	1,702	1,674	614	523	2,002	1,937
24 UNIVERSITY OF KENTUCKY	2,286E	2,286	1,920E	1,920	366E	366	2,030E	2,030
25 NEW YORK UNIVERSITY	2,110I	2,047	1,433I	1,391	677I	656	1,641I	1,534
26 UNIVERSITY OF IOWA	2,091	2,060	1,754	1,730	337	330	1,882	1,858
27 MICHIGAN STATE UNIVERSITY	2,048	1,844I	1,904	1,738I	144	106I	1,936	1,782
28 UNIV OF SOUTHERN CAL	2,038	1,817	1,493	1,332	545	485	1,643	1,510
29 UNIV OF TEXAS AT AUSTIN	2,002	1,906	1,684	1,667	318	239	1,833	1,788
30 YALE UNIVERSITY	1,978	1,963	1,821	1,785	157	178	1,918	1,881
TOTAL, 1ST 30 INSTS.	84,124	80,851	67,327	65,051	16,797	15,800	74,033	72,076
31 HOWARD UNIVERSITY	1,951	2,093	1,073	1,154	878	939	1,254	1,378
32 N C STATE UNIV AT RALEIGH	1,890	1,869	1,760	1,739	130	130	1,808	1,787
33 UNIV OF PENNSYLVANIA	1,883	1,892	1,543	1,551	340	341	1,692	1,687
34 WASHINGTON UNIVERSITY	1,871	1,767	1,641	1,609	230	158	1,767	1,634
35 UNIVERSITY OF UTAH	1,721	1,724	1,223	1,230	498	494	1,437	1,436
36 UNIV OF MD COLLEGE PARK	1,716	1,611	1,426	1,352	290	259	1,556	1,498
37 UNIVERSITY OF ARIZONA	1,704	1,708	1,479	1,493	225	215	1,573E	1,578
38 UNIVERSITY OF KANSAS	1,700	1,639	1,420	1,452	280	187	1,596I	1,533
39 UNIV OF ILL CHICAGO	1,668	1,493	1,263	1,163	405	330	1,433	1,299
40 UNIV OF CAL SAN DIEGO	1,650	1,698	1,239	1,301	411	397	1,419	1,491
TOTAL, 1ST 40 INSTS.	101,878	98,345	81,394	79,095	20,484	19,250	89,370	87,400
41 UNIVERSITY OF CINCINNATI	1,649	1,538	1,378	1,317	271	221	1,428	1,385
42 IOWA ST U OF SCI & TECH	1,590	1,530	1,464	1,392	126	138	1,544	1,475
43 DUKE UNIVERSITY	1,590	1,608	1,464	1,503	126	105	1,402	1,555
44 RUTGERS THE ST UNIV OF NJ	1,568	1,550	1,510	1,507	58	43	1,528	1,520
45 UNIVERSITY OF CONNECTICUT	1,565	1,561	1,251	1,271	314	290	1,385	1,369
46 CASE WESTERN RESERVE UNIV	1,525	1,516	1,355	1,326	170	190	1,390	1,371
47 UNIVERSITY OF OKLAHOMA	1,508	1,213	1,282	1,082	226	131	1,381	1,152
48 UNIV OF NC AT CHAPEL HILL	1,478	1,516	1,348	1,358	130	158	1,413	1,437
49 UNIVERSITY OF MIAMI	1,472	1,387E	1,344	1,287E	128	100I	1,388	1,319I
50 NORTHWESTERN UNIVERSITY	1,470	1,460	1,246	1,250	224	210	1,247	1,304
TOTAL, 1ST 50 INSTS.	117,293	113,224	95,036	92,388	22,257	20,836	103,478	101,291

SEE FOOTNOTES AT END OF TABLE.

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TABLE 19. -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES: JANUARY 1984 AND 1985

- CONTINUED INSTITUTIONAL RANKING	-----TOTAL-----		---FULL TIME--		---PART TIME--		---TOTAL FTE--	
	1985	1984	1985	1984	1985	1984	1985	1984
51 CMTY COL ALLEGHENY COUNTY	1,459I	1,410I	108I	104I	1,351I	1,306I	1,108I	1,070
52 BOSTON UNIVERSITY	1,451	1,379	897	869	554	510	1,075	1,032
53 U TEX HLTH SCI CTR DALLAS	1,430	1,358	991	979	439	379	1,164	1,128
54 NEW MEXICO STATE UNIV	1,425	1,362	1,259	1,214	166	148	1,318	1,271
55 ARIZONA STATE UNIVERSITY	1,405	1,208	1,039	967	366	241	1,198	1,070
56 UNIV OF HAWAII-MANOA	1,384	1,355	1,041	1,045	343	310	1,183	1,169
57 WAYNE STATE UNIVERSITY	1,373E	1,373E	1,050E	1,050E	323E	323E	1,164E	1,164E
58 NORTHEASTERN UNIVERSITY	1,373	1,432	672	689E	701	743E	1,030I	1,018I
59 UNIV ALABAMA BIRMINGHAM	1,365	1,302	1,197	1,133	168	169	1,246	1,185
60 UNIV OF MISSOURI COLUMBIA	1,359	1,243	1,200	1,131	159	112	1,257	1,193
TOTAL, 1ST 60 INSTS.	131,317	126,646	104,490	101,569	26,827	25,077	115,225	112,593
61 TEMPLE UNIVERSITY	1,355	1,347	1,068	1,051	287	296	1,199	1,157
62 UNIV OF MD BALT PROF SCH	1,348	1,389	972	884	376	505	1,133E	1,054
63 UNIVERSITY OF CHICAGO	1,336	1,336	1,258	1,258	78	78	1,269	1,269
64 STANFORD UNIVERSITY	1,329	1,337	1,074	1,056	255	281	1,066	1,018
65 SUNY AT STONY BROOK	1,318	1,314	1,188	1,164	130	150	1,230	1,221
66 GEORGE WASHINGTON UNIV	1,281	1,238	652	658	629	580	894	880
67 CUNY MT SINAI SCH OF MED	1,267I	1,230	992I	963	275I	267	1,088I	1,056
68 OREGON STATE UNIVERSITY	1,243	1,193	1,088	1,049	155	144	1,162	1,109
69 YESHIVA UNIVERSITY	1,218	1,198	867	860	351	338	912	949
70 UNIVERSITY OF GEORGIA	1,213	1,197	1,149	1,139	64	58	1,179E	1,168
TOTAL, 1ST 70 INSTS.	144,225	139,425	114,798	111,651	29,427	27,774	126,361	123,477
71 U TEX HLTH SCI CTR S ANTO	1,209	1,185	996	967	213	218	1,078	1,053
72 GEORGIA INSTITUTE OF TECH	1,205	1,209	1,119	1,130	86	79	1,156	1,164
73 AUBURN UNIVERSITY	1,196	1,140	1,091	1,035	105	105	1,130	1,072
74 UNIVERSITY OF COLORADO	1,195	1,062	502	607	693	455	952	852
75 UNIVERSITY OF ROCHESTER	1,181E	1,181	1,132E	1,132	49E	49	1,148E	1,148
76 WEST VIRGINIA UNIVERSITY	1,179	1,163	1,070	1,050	109	113	1,109	1,092
77 UNIVERSITY OF NEW MEXICO	1,177E	1,177	884E	884	293E	293	1,017E	1,017
78 UNIV OF SOUTH CAROLINA	1,159	1,131	1,017	979	142	152	1,035	1,014
79 KANS ST U - AG & APP SCI	1,146	1,183	1,021	1,074	125	109	1,075	1,120
80 UNIVERSITY OF VIRGINIA	1,141	1,135	1,056	1,067	85	68	1,054I	1,067
TOTAL, 1ST 80 INSTS.	156,013	150,991	124,686	121,576	31,327	29,415	137,119	134,081
81 COLORADO STATE UNIVERSITY	1,094	1,062	1,040	1,007	54	55	1,015	1,000
82 VANDERBILT UNIVERSITY	1,081	1,039	903	877	178	162	940	829
83 VA POLYTECH INST & ST U	1,071	1,086	1,045	1,062	26	24	1,061	1,076
84 UNIV OF MASS AT AMHERST	1,068	1,013	976	949	92	64	1,020	975
85 UNIV OF CAL IRVINE	1,021	973	780	772	241	201	900	871
86 U TEX HLTH SCI CTR HOUSTN	1,014I	988E	1,002I	976E	12I	12E	1,002I	976I
87 BAYLOR COL OF MEDICINE	1,000	990	866	860	134	130	838	816
88 GEORGETOWN UNIVERSITY	966	939	899	885	67	54	934	914
89 SOUTHERN ILL U-CARBONDALE	957	915	809	780	148	135	869	830
90 U TENNESSEE KNOXVILLE	954	965	851	850	103	115	888	889
TOTAL, 1ST 90 INSTS.	166,239	160,961	133,857	130,594	32,382	30,367	146,588	143,260
91 MED UNIV OF SO CAROLINA	936I	912I	819I	798I	117I	114I	825I	803I
92 VIRGINIA COMMONWLTH UNIV	936	943	872	864	64	79	899	895
93 UNIV OF SOUTH FLORIDA	932	878	690	653	242	225	835	786
94 U TEXAS SYSTEM CANCER CTR	916	855	866	804	50	51	881	827
95 UNIV OF P R-MED SCI CMPUS	876	629I	572	536I	304	93I	572	537I
96 U OF ARKANSAS MED SCI CAM	865	833	782	765	83	68	819	786
97 TUFTS UNIVERSITY	855	822I	567	357I	288	465I	697	510I
98 MAYO GRAD SCHOOL OF MED	825E	-	825E	-	0	-	825I	-
99 TEXAS TECH UNIVERSITY	802I	781	692I	674	110I	107	736I	716
100 UNIVERSITY OF MISSISSIPPI	796	786	640	630	156	156	693I	673I
TOTAL, 1ST 100 INSTS.	174,978	168,400	141,182	136,675	33,796	31,725	154,373	149,797
TOTAL, ALL OTHER INSTS.	205,381	202,079	146,413	143,972	58,968	58,108	169,506	167,049

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED. DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.
SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 20. -- FULL-TIME-EQUIVALENT SCIENTISTS AND ENGINEERS EMPLOYED IN RESEARCH AND DEVELOPMENT AT UNIVERSITIES AND COLLEGES: JANUARY 1978 AND 1983-85

INSTITUTIONAL RANKING	R&D FTE				TOTAL FTE			
	1985	1984	1983	1978	1985	1984	1983	1978
TOTAL, ALL INSTITUTIONS	65,764	62,514	60,593	55,961	323,879	316,846	306,441	271,656
1 JOHNS HOPKINS UNIVERSITY	2,801E	2,643	2,542	693I	3,751	3,499	3,395	2,086
2 UNIV OF WIS-MADISON	1,981	1,912	1,906	1,724	3,632	3,524	3,506	3,334
3 YALE UNIVERSITY	1,496	1,472	1,102	1,029	1,918	1,881	1,832	1,755I
4 UNIV OF CAL SAN FRANCISCO	1,270	1,176	1,122	315I	1,935	1,863	1,799	1,146I
5 UNIV OF CAL DAVIS	1,134	1,065	974	401I	2,002	1,937	1,799	1,356I
6 CORNELL UNIVERSITY	1,098I	1,086I	1,094I	1,236	2,537I	2,540	2,544I	2,643
7 TEXAS A & M UNIVERSITY	1,041	1,045	987	596I	2,430	2,418	2,300	2,072
8 LOUISIANA STATE UNIV	1,001	996	954	436	2,103	2,065	2,029	2,102
9 UNIV OF CAL LOS ANGELES	956	1,001	936	593I	2,538	2,524	2,578	2,182I
10 WASHINGTON UNIVERSITY	942	915	920	446	1,567	1,634	1,625	1,232
TOTAL, 1ST 10 INSTS.	13,720	13,313	12,537	7,474	25,414	24,687	24,107	19,908
11 UNIV OF CAL BERKELEY	916	919	845	493I	1,912	1,914	1,814	1,770I
12 HARVARD UNIVERSITY	912	804	671	818	6,467	6,193	5,890	4,261
13 UNIV OF CAL SAN DIEGO	903	951	949	302I	1,419	1,491	1,491	993I
14 UNIVERSITY OF MICHIGAN	866	788	748	885	2,821	2,690	2,342	3,009
15 UNIVERSITY OF ARIZONA	864	853	823	459I	1,573E	1,578	1,544	1,569
16 UNIVERSITY OF WASHINGTON	852	778	721	756	2,254	2,136	2,115I	2,333
17 MASS INST OF TECHNOLOGY	833I	845E	845I	880I	2,315	2,330E	2,330	2,237
18 UNIV OF ILL URBANA	779	771	640	819	2,075	2,323	2,242	2,163
19 COLUMBIA UNIV MAIN DIV	769	748	763	575I	2,199	2,098	2,121	1,721
20 MICHIGAN STATE UNIVERSITY	731	518I	512	355	1,936	1,782	1,734	1,674
TOTAL, 1ST 20 INSTS.	22,147	21,290	20,057	13,820	50,388	49,224	47,733	41,638
21 UNIV OF TEXAS AT AUSTIN	720	679	668	570	1,833	1,788	1,737	1,774
22 PENNSYLVANIA STATE UNIV	714	685	651	416	2,284	2,235	2,201	1,985
23 U TEXAS SYSTEM CANCER CTR	708	635	633	624	881	827	834	801
24 SUNY AT BUFFALO	697	400I	0	285I	1,743	1,795I	1,009	1,093I
25 GEORGIA INSTITUTE OF TECH	660	635	579	567	1,156	1,164	1,125	1,024
26 DUKE UNIVERSITY	650	476	701	807	1,402	1,555	1,555	1,442
27 U TEX HLTH SCI CTR S ANTO	596	579	589	406	1,078	1,053	1,036	730
28 UNIVERSITY OF CHICAGO	594	594	604	665	1,269	1,269	1,229	1,329
29 UNIV OF PENNSYLVANIA	580	516	541	972I	1,692	1,687	1,751	2,967I
30 NEW MEXICO STATE UNIV	560	507	442	119	1,318	1,271	1,150	467
TOTAL, 1ST 30 INSTS.	28,629	27,000	25,467	19,254	65,046	63,870	61,361	55,250
31 NEW YORK UNIVERSITY	552I	521	802	732	1,641I	1,534	1,597	1,511
32 UNIVERSITY OF GEORGIA	533	555	552	519	1,179E	1,168	1,168	1,166
33 OREGON STATE UNIVERSITY	522	496	545	598	1,162	1,109	1,104	1,113
34 STANFORD UNIVERSITY	514	509	525	1,045	1,066	1,018	1,050I	1,723
35 ROCKEFELLER UNIVERSITY	504	432	401	347	533	478	443	384
36 UNIV OF MD COLLEGE PARK	498	487	383	149	1,556	1,498	1,355	1,322
37 UNIVERSITY OF MINNESOTA	496	449	524	613	2,883	2,900	2,791	3,146
38 KANS ST U - AG & APP SCI	494	450	501	217	1,075	1,120	1,153	862
39 CASE WESTERN RESERVE UNIV	486	457	465	489	1,390	1,371	1,459	1,318
40 OHIO STATE UNIVERSITY	480	440	201	544	3,410	3,276	2,801	2,984
TOTAL, 1ST 40 INSTS.	33,712	31,799	30,369	24,511	80,944	79,345	76,284	70,779
41 UNIV OF CAL RIVERSIDE	474	458	457	125I	650	618	612	392I
42 N C STATE UNIV AT RALEIGH	473	450	423	315	1,808	1,787	1,775	1,599
43 UNIVERSITY OF FLORIDA	472	445	415	305I	2,572E	2,455	2,423	2,024
44 UNIVERSITY OF COLORADO	472	269	446	330I	952	852	1,476	1,281
45 SUNY AT STONY BROOK	446	434	405	256	1,230	1,221	1,143	715
46 HOWARD UNIVERSITY	445	497	439E	294I	1,254	1,378	1,261	913I
47 NORTHWESTERN UNIVERSITY	443	479	414	307I	1,247	1,304	1,330	902
48 IOWA ST U OF SCI & TECH	431	390	385	407	1,544	1,475	1,434	1,226
49 U TEX HLTH SCI CTR DALLAS	400	378	358	297	1,164	1,128	1,037	712
50 UNIVERSITY OF CONNECTICUT	388	388	376	326	1,385	1,369	1,396	1,168
TOTAL, 1ST 50 INSTS.	38,159	35,990	34,489	27,476	94,753	92,934	90,173	81,711

SEE FOOTNOTES AT END OF TABLE.

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TABLE 20. -- FULL-TIME-EQUIVALENT SCIENTISTS AND ENGINEERS EMPLOYED IN RESEARCH AND DEVELOPMENT AT UNIVERSITIES AND COLLEGES: JANUARY 1978 AND 1983-85 - CONTINUED

INSTITUTIONAL RANKING	R&D FTE				TOTAL FTE			
	1985	1984	1983	1978	1985	1984	1983	1978
51 UNIV OF HAWAII-MANOA	388	374	370	359	1,183	1,149	1,138	1,123
52 UNIVERSITY OF IOWA	384	398	445	403	1,882	1,858	1,814	1,398
53 UNIVERSITY OF NEW MEXICO	374	374	299	226	1,017E	1,017	934	713
54 UNIVERSITY OF MIAMI	372	271I	70	270	1,388	1,319I	1,198	1,040
55 UNIVERSITY OF KENTUCKY	366	366	366	375	2,030E	2,030	2,030	1,285
56 CARNEGIE-MELLON UNIV	352	244	363I	198I	951	406	887I	528I
57 UNIVERSITY OF ROCHESTER	349	349	459	594	1,148E	1,148	1,208	1,021
58 BRANDEIS UNIVERSITY	346	226	228	90I	492	346	350	255I
59 CALIFORNIA INST OF TECH	345	347	347	307I	928	930	934	722
60 CUNY MT SINAI SCH OF MED	334I	327I	416I	273I	1,088I	1,066	1,301I	802I
TOTAL, 1ST 60 INSTS.	41,773	39,269	37,854	30,577	106,063	103,816	101,269	90,598
61 BOSTON UNIVERSITY	330	312	313	226	1,075	1,032	1,044	705
62 BAYLOR COL OF MEDICINE	328	472	301	271I	838	816	769	705I
63 MISSISSIPPI STATE UNIV	315	346	280	346E	775	698	699	632
64 TUFTS UNIVERSITY	314	203I	201I	88	697	910I	803I	354
65 RUTGERS THE ST UNIV OF NJ	314	326	342	365I	1,528	1,520	1,538	1,452I
66 UNIVERSITY OF KANSAS	310I	312I	264I	347I	1,596I	1,533	1,797I	1,295I
67 UNIV ALABAMA BIRMINGHAM	310	295	279	298	1,246	1,188	1,144	1,005
68 UNIVERSITY OF UTAH	307I	307I	359E	378I	1,437	1,436	1,437	1,426
69 UNIV OF NEBRASKA-LINCOLN	307	319	327	253	729	771	769	764
70 MEDICAL COLLEGE OF WIS	298I	295	8I	56	644I	-C	106I	468
TOTAL, 1ST 70 INSTS.	44,910	42,460	40,532	33,209	116,632	113,947	110,979	99,404
71 MAYO GRAD SCHOOL OF MED	298I	-	-	-	825I	-	-	-
72 UNIVERSITY OF OKLAHOMA	294	208	204I	22	1,381	1,152	1,058I	313
73 UNIVERSITY OF VIRGINIA	291	298	289	229I	1,054I	1,067	1,034I	835I
74 YESHIVA UNIVERSITY	291	284	374	290	912	949	988E	1,076
75 UNIV OF MD BALT PROF SCH	290	206	149	111	1,133E	1,084	1,018	769
76 UNIVERSITY OF CINCINNATI	289	277	261	223	1,428	1,385	1,179	872
77 UNIV OF MISSOURI COLUMBIA	289	389	568	316I	1,257	1,193	1,243	1,142I
78 COLORADO STATE UNIVERSITY	281	296	298	217	1,019	1,000	1,011	875
79 UNIV OF CAL IRVINE	281	302	292	151I	900	871	857	533I
80 UNIV OF ILL CHICAGO	276	376	357	341	1,433	1,299	1,286	1,504
TOTAL, 1ST 80 INSTS.	47,794	45,100	43,328	35,112	127,974	123,920	120,656	107,323
81 VANDERBILT UNIVERSITY	270	253	264	284I	940	829	915	818I
82 PURDUE UNIVERSITY	263	264	280	260	2,219E	2,185	2,181	1,690
83 OKLAHOMA STATE UNIVERSITY	263	263	217	204	711	798	749	676
84 AUBURN UNIVERSITY	263	257	228	225	1,130	1,072	1,083	790
85 MED UNIV OF SO CAROLINA	261I	262I	204	167I	825I	803I	613	616I
86 GEORGETOWN UNIVERSITY	261	258	248	215I	934	914	884	667I
87 INDIANA UNIVERSITY	255	258	283	291I	1,822	1,877	1,967	1,579I
88 TEMPLE UNIVERSITY	239	180	236I	262I	1,199	1,157	1,301I	1,147I
89 UNIV OF NC AT CHAPEL HILL	238	225	184	288I	1,413	1,437	1,211	1,163
90 VA POLYTECH INST & ST U	223	266	293	309	1,061	1,076	1,093	978
TOTAL, 1ST 90 INSTS.	50,332	47,588	45,769	37,623	140,230	136,071	132,656	117,447
91 WASHINGTON STATE UNIV	222I	164	218I	317I	558I	541	714I	1,160I
92 WOODS HOLE OCNGRPHIC INST	221I	221	228	168	221I	221	228	233E
93 SOUTHERN ILL U-CARBONDALE	218	140	144	163	869	830	849	674
94 PRINCETON UNIVERSITY	217I	214	216	402	524I	506	527	630
95 OREGON HLTH SCIENCES UNIV	208	308I	300I	319	583	635I	612I	622
96 FLORIDA STATE UNIVERSITY	205	180	153	229	708	649	682	480
97 UNIVERSITY OF DAYTON	203	206	10	203	381	371	170	372
98 WAYNE STATE UNIVERSITY	201	213	213	363I	1,164E	1,164E	1,164	1,360I
99 UNIVERSITY OF DELAWARE	200	200	210	181	559	547	574	481
100 GEORGE WASHINGTON UNIV	191	193	201	245	894	880	859	797
TOTAL, 1ST 100 INSTS.	52,421	49,631	47,665	40,216	146,695	142,417	139,037	124,256
TOTAL, ALL OTHER SAMPLED INSTS.	12,839	12,373	12,927	15,745	140,948	138,700	167,404	147,399
ESTIMATED TOTAL, NON-SAMPLED INSTS.	503	508	0	0	36,234	35,729	0	0

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED. DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.
SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 21. — SCIENCE/ENGINEERING GRADUATE STUDENTS IN ALL INSTITUTIONS BY FIELD: 1977 AND 1979-84 1/

FIELD	NUMBER							AVERAGE ANNUAL PERCENT CHANGE		
	1977	1979	1980	1981	1982	1983	1984	1977-83	1983-84	1977-84
TOTAL, ALL FIELDS	358,323	373,198	383,100	391,640	398,982	413,447	415,063	2.4	0.4	2.1
ENGINEERING	69,142	72,262	75,084	80,479	84,594	92,711	94,886	5.0	2.3	4.6
AEROSPACE	1,518	1,481	1,737	1,883	1,941	2,408	2,413	8.0	.2	6.8
AGRICULTURAL	709	740	742	802	875	969	954	5.3	-1.5	4.3
BIOMEDICAL	900	1,051	1,011	1,057	1,116	1,244	1,288	5.5	3.5	5.3
CHEMICAL	5,201	5,605	6,015	6,496	7,189	7,563	7,510	6.4	-.7	5.4
CIVIL	12,712	13,217	13,902	14,515	14,523	15,406	15,578	3.3	1.1	2.9
ELECTRICAL	17,406	17,789	19,227	20,193	22,017	24,769	26,267	6.1	6.0	6.1
ENGINEERING SCIENCE	1,737	1,681	1,796	1,965	2,130	2,281	2,294	4.6	.6	4.1
INDUSTRIAL	10,438	10,714	9,870	10,026	9,870	10,712	10,801	.4	.8	.5
MECHANICAL	8,722	9,251	9,888	10,618	11,467	12,911	13,904	6.8	7.7	6.9
METALLURGICAL/MATERIALS	2,559	2,756	2,910	3,125	3,124	3,447	3,608	5.1	4.7	5.0
MINING	452	389	413	462	449	524	477	2.5	-9.0	.8
NUCLEAR	1,491	1,318	1,241	1,283	1,301	1,203	1,234	-3.5	2.6	-2.7
PETROLEUM	379	424	503	521	586	737	732	11.7	-.7	9.9
ENGINEERING, N.E.C.	4,918	5,846	6,229	7,533	8,006	8,537	7,825	9.6	-8.3	6.9
SCIENCES, TOTAL	289,181	300,936	308,016	311,161	314,388	320,736	320,177	1.7	-.2	1.5
PHYSICAL SCIENCES	26,855	26,700	26,952	27,382	28,199	29,475	29,808	1.6	1.1	1.5
ASTRONOMY	649	652	628	597	632	618	639	-.8	3.4	-.2
CHEMISTRY	16,020	16,101	16,222	16,347	17,015	17,810	17,692	1.8	-.7	1.4
PHYSICS	9,933	9,699	9,898	10,150	10,306	10,811	11,249	1.4	4.1	1.8
PHYSICAL SCIENCES, N.E.C.	253	248	204	288	246	236	228	-1.2	-3.4	-1.5
ENVIRONMENTAL SCIENCES	13,658	13,854	14,208	14,422	15,174	15,609	15,110	2.3	-3.2	1.5
ATMOSPHERIC SCIENCES	924	852	889	882	889	896	895	-.5	-.1	-.5
GEOSCIENCES	8,071	8,532	8,668	8,808	9,621	10,321	10,150	4.2	-1.7	3.3
OCEANOGRAPHY	1,957	1,867	1,992	2,082	2,091	2,063	1,929	.9	-6.5	-.2
ENVIRONMENTAL SCIENCES, N.E.C.	2,706	2,603	2,659	2,650	2,573	2,329	2,136	-2.5	-8.3	-3.3
MATHEMATICAL SCIENCES	16,069	15,063	15,360	15,915	17,199	17,443	16,963	1.4	-2.8	.8
COMPUTER SCIENCES	9,108	11,690	13,578	16,437	19,812	24,060	24,287	17.6	.9	15.0
LIFE SCIENCES	95,472	99,827	102,504	103,124	102,889	103,828	104,933	1.4	1.1	1.4
AGRICULTURAL SCIENCES	11,520	12,069	12,254	12,100	12,314	12,290	12,030	1.1	-2.1	.6
BIOLOGICAL SCIENCES	49,956	48,503	47,890	46,979	46,310	46,091	46,230	-1.2	.3	-1.0
ANATOMY	1,188	1,133	1,082	1,072	1,074	1,037	1,046	-2.2	.9	-1.8
BIOCHEMISTRY	3,928	4,034	4,053	4,061	4,124	4,234	4,486	1.2	5.9	1.9
BIOLOGY	17,005	15,754	14,992	14,203	13,397	13,322	12,397	-4.0	-6.9	-4.4
BIOMETRY/EPIDEMIOLOGY	1,068	1,128	1,259	1,182	1,166	1,156	1,006	1.5	-13.0	-.7
BIOPHYSICS	570	525	485	463	440	450	433	-3.9	-3.8	-3.9
BOTANY	3,865	3,698	3,617	3,498	3,644	3,450	3,441	-1.9	-.3	-1.6
CELL BIOLOGY	825	894	969	1,018	1,143	1,212	1,316	6.6	8.6	6.9
ECOLOGY	1,067	1,064	1,181	1,101	1,091	1,007	1,110	-1.0	10.2	.6
ENTOMOLOGY/PARASITOLOGY	1,602	1,697	1,722	1,644	1,540	1,475	1,438	-1.4	-2.5	-1.5
GENETICS	1,030	970	964	937	990	1,035	1,012	.1	-2.2	-.3
MICROBIOLOGY	4,480	4,163	4,178	4,070	4,130	4,224	4,612	-1.0	9.2	.4
NUTRITION	3,816	3,920	4,128	4,388	4,359	4,395	4,278	2.4	-2.7	1.6
PATHOLOGY	1,357	1,484	1,479	1,444	1,440	1,462	1,462	1.2	*	1.1
PHARMACOLOGY	1,794	2,004	2,018	2,024	2,084	2,069	2,083	2.4	.7	2.2
PHYSIOLOGY	2,122	2,192	2,104	2,144	2,088	2,194	2,175	-1.0	9.1	.4
ZOOLOGY	3,076	2,900	2,886	2,678	2,603	2,430	2,385	-3.9	-1.9	-3.6
BIOSCIENCES, N.E.C.	763	1,011	1,033	1,118	1,147	1,139	1,551	6.9	36.2	10.7
HEALTH SCIENCES	34,396	39,288	42,360	44,048	44,268	45,447	46,673	4.8	2.7	4.5
DENTISTRY	986	1,029	1,002	942	836	776	850	-3.9	9.5	-2.1
NEUROLOGY	233	261	249	191	204	261	303	1.9	16.1	3.8
NURSING	10,943	12,796	13,877	16,703	16,394	16,948	19,537	7.6	15.3	8.6
PHARMACEUTICAL SCIENCES	2,472	2,441	2,454	2,849	2,819	2,641	2,633	1.1	-.3	.9
PREVENTIVE MEDICINE/ COMMUNITY HEALTH	4,856	6,428	7,102	7,226	6,816	6,192	6,137	5.3	-.9	4.4
SPEECH PATHOLOGY/AUDIOLOGY	8,163	8,206	8,618	8,166	8,443	8,873	7,581	1.4	-14.6	-1.0
VETERINARY SCIENCES	487	538	611	481	471	466	557	-.7	19.5	1.9
CLINICAL MEDICINE, N.E.C.	1,480	1,631	1,617	1,610	1,747	1,662	1,510	2.0	-9.2	.3
HEALTH RELATED, N.E.C.	5,078	6,038	6,982	6,747	6,738	7,631	7,565	7.0	-.9	5.9
PSYCHOLOGY	38,628	39,786	40,636	40,691	40,098	41,129	40,657	1.1	-1.1	.7
SOCIAL SCIENCES	89,391	94,016	94,778	93,190	91,017	89,192	88,419	*	-.9	-.2
AGRICULTURAL ECONOMICS	2,719	2,721	2,343	2,262	2,267	2,295	2,270	.6	-1.1	.3
ANTHROPOLOGY	6,728	6,343	6,322	6,118	5,948	5,644	5,586	-2.9	-1.0	-2.6
ECONOMICS (EXCEPT AGRICULTURAL)	12,063	12,130	13,132	13,344	13,735	13,587	13,248	2.0	-2.5	1.3
GEOGRAPHY	3,375	3,043	3,204	3,187	3,164	3,060	3,044	-1.6	.1	-1.4
HISTORY AND PHILOSOPHY OF SCIENCE	300	265	280	248	256	253	274	-2.8	8.3	-1.3
LINGUISTICS	2,668	3,043	3,007	3,139	2,803	3,022	3,027	2.1	.2	1.8
POLITICAL SCIENCE	27,199	30,735	31,212	30,791	29,907	28,303	26,873	.7	-5.1	-.2
SOCIOLOGY	8,864	8,199	8,001	7,816	7,246	6,949	6,763	-4.0	-2.7	-3.8
SOCIOLOGY/ANTHROPOLOGY	1,398	1,236	1,206	1,110	1,133	1,182	1,054	-2.8	-10.8	-4.0
SOCIAL SCIENCES, N.E.C.	24,577	26,821	26,071	25,175	24,556	24,897	26,260	.2	5.5	1.0

1/ DATA FOR 1978 ARE AVAILABLE FOR DOCTORATE-GRANTING INSTITUTIONS ONLY.
* LESS THAN 0.05 PERCENT CHANGE
SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 22. -- MALE SCIENCE/ENGINEERING GRADUATE STUDENTS IN ALL INSTITUTIONS BY FIELD: 1977 AND 1979-84 1/

FIELD	NUMBER							AVERAGE ANNUAL PERCENT CHANGE		
	1977	1979	1980	1981	1982	1983	1984	1977-83	1983-84	1977-84
TOTAL, ALL FIELDS	250,179	246,953	249,328	249,471	252,179	259,990	259,967	.6	*	.5
ENGINEERING	65,307	66,235	68,581	72,548	75,621	82,465	84,128	4.0	2.0	3.7
AEROSPACE	1,485	1,432	1,663	1,816	1,831	2,283	2,280	7.4	-.1	6.3
AGRICULTURAL	680	708	711	758	818	896	876	4.7	-2.2	3.7
BIOMEDICAL	817	919	845	877	897	974	1,017	3.0	4.4	3.2
CHEMICAL	4,827	4,991	5,336	5,718	6,288	6,547	6,547	5.2	*	4.5
CIVIL	11,752	11,752	11,973	12,778	12,614	13,388	13,413	2.2	.2	1.9
ELECTRICAL	16,696	16,856	18,244	18,917	20,466	22,829	24,110	5.4	5.6	5.4
ENGINEERING SCIENCE	1,650	1,540	1,645	1,764	1,864	1,990	1,983	3.2	-.4	2.7
INDUSTRIAL	9,683	9,463	8,520	8,466	8,216	8,769	8,713	-1.6	-.6	-1.5
MECHANICAL	8,449	8,782	9,354	9,987	10,748	12,106	12,971	6.2	7.1	6.3
METALLURGICAL/MATERIALS	2,376	2,468	2,607	2,735	2,704	2,999	3,143	4.0	4.8	4.1
MINING	434	363	385	423	409	477	437	1.6	-8.4	.1
NUCLEAR	1,434	1,233	1,160	1,199	1,215	1,119	1,147	-4.0	2.5	-3.1
PETROLEUM	365	393	462	469	544	665	673	10.5	1.2	9.1
ENGINEERING, N.E.C.	4,659	5,335	5,676	6,641	7,007	7,423	6,819	8.1	-8.1	5.6
SCIENCES, TOTAL	184,872	180,718	180,747	176,923	176,558	177,525	175,838	-.7	-1.0	-.7
PHYSICAL SCIENCES	22,816	22,205	22,352	22,366	22,776	23,594	23,736	.6	.6	.6
ASTRONOMY	568	571	546	506	531	526	542	-1.3	3.0	-.7
CHEMISTRY	12,936	12,683	12,718	12,544	12,855	13,297	13,090	.5	-1.6	.2
PHYSICS	9,129	8,813	8,950	9,133	9,238	9,609	9,962	.9	3.7	1.3
PHYSICAL SCIENCES, N.E.C.	183	138	138	183	152	162	142	-2.0	-12.2	-3.6
ENVIRONMENTAL SCIENCES	11,307	10,925	10,940	10,945	11,393	11,634	11,360	.5	-2.4	.1
ATMOSPHERIC SCIENCES	850	757	779	758	764	766	759	-1.7	-.9	-1.6
GEOSCIENCES	6,703	6,741	6,743	6,746	7,318	7,808	7,735	2.6	-.9	2.1
OCEANOGRAPHY	1,602	1,454	1,505	1,529	1,514	1,497	1,387	-1.1	-7.3	-2.0
ENVIRONMENTAL SCIENCES, N.E.C.	2,152	1,973	1,913	1,912	1,797	1,563	1,479	-5.2	-5.4	-5.2
MATHEMATICAL SCIENCES	11,944	11,027	11,272	11,419	12,109	12,222	11,994	.4	-1.9	.1
COMPUTER SCIENCES	7,549	9,367	10,491	12,228	14,366	17,296	17,911	14.8	3.6	13.1
LIFE SCIENCES	53,658	51,398	51,062	49,353	47,646	46,796	46,655	-2.3	-.3	-2.0
AGRICULTURAL SCIENCES	9,453	9,461	9,447	9,370	9,314	9,183	8,966	-.5	-2.4	-.8
BIOLOGICAL SCIENCES	32,712	30,499	29,492	28,210	27,021	26,576	26,706	-3.4	.5	-2.9
ANATOMY	801	724	673	683	669	632	615	-3.9	-2.7	-3.7
BIOCHEMISTRY	2,821	2,773	2,732	2,694	2,630	2,658	2,813	-1.0	5.8	*
BIOLOGY	11,352	9,991	9,347	8,651	7,873	7,694	7,211	-6.3	-6.3	-6.3
BIOMETRY/EPIDEMIOLOGY	592	593	648	656	561	547	473	-1.3	-13.5	-3.2
BIOPHYSICS	459	428	380	338	330	338	326	-5.0	-3.6	-4.8
BOTANY	2,747	2,513	2,429	2,285	2,329	2,201	2,203	-3.6	.1	-3.1
CELL BIOLOGY	542	557	619	651	726	797	827	6.6	3.8	6.2
ECOLOGY	782	746	813	730	684	666	750	-2.6	12.7	-.6
ENTOMOLOGY/PARASITOLOGY	1,325	1,353	1,368	1,308	1,158	1,090	1,066	-3.2	-2.2	-3.1
GENETICS	552	508	495	470	461	512	550	-1.2	7.4	-.1
MICROBIOLOGY	2,832	2,478	2,443	2,309	2,318	2,358	2,512	-3.0	6.5	-1.7
NUTRITION	1,435	1,351	1,428	1,386	1,368	1,329	1,328	-1.3	-.1	-1.1
PATHOLOGY	899	975	922	882	872	883	872	-.3	-1.3	-.4
PHARMACOLOGY	1,324	1,419	1,361	1,330	1,356	1,328	1,308	.1	-1.5	-.2
PHYSIOLOGY	1,594	1,525	1,467	1,452	1,367	1,297	1,397	-3.4	7.7	-1.9
ZOOLOGY	2,157	1,962	1,764	1,718	1,651	1,609	1,520	-4.8	-5.5	-4.9
BIOSCIENCES, N.E.C.	498	603	603	667	668	637	934	4.2	46.7	9.4
HEALTH SCIENCES	11,493	11,438	12,123	11,773	11,311	11,037	10,983	-.7	-.5	-.6
DENTISTRY	847	840	801	716	676	607	664	-5.4	9.4	-3.4
NEUROLOGY	164	178	175	131	140	189	194	2.4	2.6	2.4
NURSING	426	578	649	730	717	747	872	9.8	16.7	10.8
PHARMACEUTICAL SCIENCES	1,754	1,714	1,730	1,797	1,751	1,776	1,711	.2	-3.7	-.4
PREVENTIVE MEDICINE/ COMMUNITY HEALTH	2,469	3,090	3,415	3,385	2,986	2,581	2,503	.7	-3.0	.2
SPEECH PATHOLOGY/AUDIOLOGY	1,879	1,398	1,314	1,186	1,220	1,199	1,248	-7.2	4.1	-5.7
VETERINARY SCIENCES	360	380	332	304	297	289	346	-3.6	19.7	-.6
CLINICAL MEDICINE, N.E.C.	955	807	823	865	954	847	769	-2.0	-9.3	-3.0
HEALTH RELATED, N.E.C.	2,639	2,453	2,884	2,659	2,570	2,802	2,677	1.0	-4.5	.2
PSYCHOLOGY	20,520	19,427	19,036	17,902	16,980	16,709	16,130	-3.4	-3.5	-3.4
SOCIAL SCIENCES	57,078	56,369	55,594	52,710	51,288	49,274	48,053	-2.4	-2.5	-2.4
AGRICULTURAL ECONOMICS	1,928	1,827	1,874	1,791	1,804	1,807	1,787	-1.1	-1.1	-1.1
ANTHROPOLOGY	3,386	3,099	3,009	2,791	2,677	2,438	2,459	-5.3	.9	-4.5
ECONOMICS (EXCEPT AGRICULTURAL)	9,749	9,498	10,126	10,139	10,237	10,159	10,013	.7	-1.4	.4
GEOGRAPHY	2,516	2,146	2,267	2,198	2,195	2,051	2,020	-3.3	-1.5	-3.1
HISTORY AND PHILOSOPHY OF SCIENCE	215	191	189	159	167	161	187	-4.7	16.1	-2.0
LINGUISTICS	1,251	1,376	1,325	1,349	1,180	1,217	1,231	-.5	1.1	-.2
POLITICAL SCIENCE	19,795	20,540	20,340	19,255	18,631	17,431	16,567	-2.1	-5.0	-2.8
SOCIOLOGY	4,834	4,243	3,984	3,780	3,376	3,269	3,144	-6.3	-3.8	-6.0
SOCIOLOGY/ANTHROPOLOGY	900	663	648	544	553	583	526	-7.0	-9.7	-7.4
SOCIAL SCIENCES, N.E.C.	12,504	12,786	11,832	10,704	10,468	10,158	10,119	-3.4	-.4	-3.0

1/ DATA WERE NOT COLLECTED IN 1978.
* LESS THAN 0.05 PERCENT CHANGE
SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 23. -- FEMALE SCIENCE/ENGINEERING GRADUATE STUDENTS IN ALL INSTITUTIONS BY FIELD: 1977 AND 1979-84 1/

FIELD	NUMBER							AVERAGE ANNUAL PERCENT CHANGE		
	1977	1979	1980	1981	1982	1983	1984	1977-83	1983-84	1977-84
TOTAL, ALL FIELDS	108,144	126,245	133,772	142,169	146,803	153,457	155,096	6.0	1.1	5.3
ENGINEERING	3,835	6,027	6,503	7,931	8,973	10,246	10,758	17.8	5.0	15.9
AEROSPACE	33	49	74	67	110	125	133	24.9	6.4	22.0
AGRICULTURAL	29	32	31	44	57	73	78	16.6	6.8	15.2
BIOMEDICAL	83	132	166	180	219	270	271	21.7	.4	18.4
CHEMICAL	374	614	679	778	901	1,016	964	18.1	-5.1	14.5
CIVIL	960	1,465	1,529	1,737	1,909	2,018	2,164	13.2	7.3	12.3
ELECTRICAL	710	933	983	1,276	1,551	1,940	2,197	18.2	11.2	17.2
ENGINEERING SCIENCE	87	141	151	201	266	291	312	22.3	7.1	20.0
INDUSTRIAL	755	1,251	1,350	1,560	1,654	1,943	2,089	17.1	7.5	15.6
MECHANICAL	273	449	534	631	719	805	933	19.7	15.9	19.2
METALLURGICAL/MATERIALS	183	288	303	390	420	448	465	16.1	3.8	14.3
MINING	18	26	28	39	40	47	40	17.3	-14.9	12.1
NUCLEAR	57	85	81	84	86	84	87	6.7	3.6	6.2
PETROLEUM	14	31	41	52	42	72	59	31.4	-18.1	22.8
ENGINEERING, N.E.C.	259	511	553	892	999	1,114	1,007	27.5	-9.6	21.4
SCIENCES, TOTAL	104,309	120,218	127,269	134,238	137,830	143,211	144,339	5.4	.8	4.7
PHYSICAL SCIENCES	4,039	4,495	4,600	5,016	5,423	5,881	6,072	6.5	3.2	6.0
ASTRONOMY	81	81	82	91	101	92	97	2.1	5.4	2.6
CHEMISTRY	3,084	3,418	3,504	3,803	4,160	4,513	4,602	6.6	2.0	5.9
PHYSICS	804	886	948	1,017	1,068	1,202	1,287	6.9	7.1	7.0
PHYSICAL SCIENCES, N.E.C.	70	110	66	105	94	74	86	.9	15.9	3.0
ENVIRONMENTAL SCIENCES	2,351	2,929	3,268	3,477	3,781	3,975	3,750	9.1	-5.7	6.9
ATMOSPHERIC SCIENCES	74	95	110	124	125	130	136	9.8	4.6	9.1
GEOSCIENCES	1,368	1,791	1,925	2,062	2,303	2,513	2,414	10.7	-3.9	8.5
OCEANOGRAPHY	355	413	487	553	577	566	542	8.1	-4.2	6.2
ENVIRONMENTAL SCIENCES, N.E.C.	554	630	746	738	776	766	658	5.5	-14.1	2.5
MATHEMATICAL SCIENCES	4,125	4,036	4,088	4,496	5,090	5,221	4,969	4.0	-4.8	2.7
COMPUTER SCIENCES	1,559	2,323	3,087	4,209	5,446	6,764	6,375	27.7	-5.7	22.3
LIFE SCIENCES	41,814	48,429	51,442	53,771	55,243	57,032	58,278	5.3	2.2	4.9
AGRICULTURAL SCIENCES	2,067	2,608	2,807	2,730	3,000	3,107	3,064	7.0	-1.4	5.8
BIOLOGICAL SCIENCES	16,844	18,004	18,398	18,769	19,289	19,515	19,525	2.5	.1	2.1
ANATOMY	387	409	409	389	405	405	431	-.8	6.4	1.6
BIOCHEMISTRY	1,117	1,261	1,321	1,367	1,494	1,576	1,672	5.9	6.1	5.9
BIOLOGY	5,653	5,763	5,645	5,552	5,524	5,628	5,186	-.1	-7.9	-1.2
BIOMETRY/EPIDEMIOLOGY	466	535	611	526	605	609	533	4.6	-12.5	1.9
BIOPHYSICS	111	97	105	125	110	112	107	.1	-4.5	-.5
BOTANY	1,118	1,145	1,188	1,213	1,315	1,249	1,237	1.9	-.9	1.5
CELL BIOLOGY	283	337	346	367	417	415	489	6.6	17.8	8.1
ECOLOGY	285	318	368	371	367	341	360	3.0	5.5	3.4
ENTOMOLOGY/PARASITOLOGY	277	344	354	356	382	385	372	5.6	-3.4	4.3
GENETICS	478	462	469	467	529	523	462	1.5	-11.7	-.5
MICROBIOLOGY	1,648	1,685	1,735	1,761	1,812	1,866	2,101	2.1	12.6	3.5
NUTRITION	2,381	2,569	2,697	2,969	2,991	3,066	2,950	4.3	-3.8	3.1
PATHOLOGY	458	481	507	562	588	579	590	4.0	1.9	3.7
PHARMACOLOGY	470	585	654	694	728	741	775	7.9	4.6	7.4
PHYSIOLOGY	528	667	637	692	691	697	778	4.7	11.6	5.7
ZOOLOGY	919	938	922	907	852	821	865	-1.9	5.4	-.9
BIOSCIENCES, N.E.C.	265	408	430	451	479	502	616	11.2	22.8	12.8
HEALTH SCIENCES	22,903	27,817	30,237	32,272	32,954	34,410	35,689	7.0	3.7	6.5
DENTISTRY	139	189	201	226	160	169	186	3.3	10.1	4.2
NEUROLOGY	69	83	74	60	64	72	109	.7	51.4	6.8
NURSING	10,517	12,218	13,228	14,973	15,537	16,198	18,666	7.5	15.2	8.5
PHARMACEUTICAL SCIENCES	718	727	704	752	768	865	922	3.2	6.6	3.6
PREVENTIVE MEDICINE/ COMMUNITY HEALTH	2,086	3,338	3,688	3,841	3,830	3,611	3,634	9.6	.6	8.3
SPEECH PATHOLOGY/AUDIOLOGY	6,283	6,898	7,301	7,410	7,463	7,674	6,332	3.4	-17.5	-.1
VETERINARY SCIENCES	127	155	179	177	174	177	211	5.7	19.2	7.5
CLINICAL MEDICINE, N.E.C.	525	624	794	745	793	815	741	7.6	-9.0	5.0
HEALTH RELATED, N.E.C.	2,439	3,585	4,068	4,088	4,165	4,829	4,888	12.1	1.2	10.4
PSYCHOLOGY	18,108	20,359	21,600	22,789	23,118	24,420	24,527	5.1	.4	4.4
SOCIAL SCIENCES	32,313	37,647	39,184	40,480	39,729	39,918	40,366	3.6	1.1	3.2
AGRICULTURAL ECONOMICS	391	394	469	471	463	488	483	9.0	-1.0	7.5
ANTHROPOLOGY	3,342	3,244	3,313	3,327	3,271	3,206	3,127	-.7	-2.5	-.9
ECONOMICS (EXCEPT AGRICULTURAL)	2,314	2,632	3,006	3,205	3,498	3,428	3,235	6.8	-5.6	4.9
GEOGRAPHY	859	897	937	989	971	1,009	1,044	2.7	3.4	2.8
HISTORY AND PHILOSOPHY OF SCIENCE	85	74	91	89	89	92	87	1.3	-5.4	.3
LINGUISTICS	1,417	1,687	1,682	1,790	1,623	1,805	1,797	4.1	-.5	3.5
POLITICAL SCIENCE	7,404	10,195	10,872	11,536	11,276	10,872	10,307	6.6	-5.2	4.8
SOCIOLOGY	4,030	3,916	4,017	4,036	3,870	3,680	3,619	-1.5	-1.7	-1.5
SOCIOLOGY/ANTHROPOLOGY	498	573	558	566	580	599	528	3.1	-11.9	.8
SOCIAL SCIENCES, N.E.C.	12,073	14,036	14,239	14,471	14,088	14,739	16,141	3.4	9.5	4.2

1/ DATA WERE NOT COLLECTED IN 1978.
* LESS THAN 0.05 PERCENT CHANGE
SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 24. -- SCIENCE/ENGINEERING GRADUATE STUDENTS IN ALL INSTITUTIONS
BY AREA, CITIZENSHIP, RACIAL/ETHNIC BACKGROUND, AND ENROLLMENT STATUS: 1980-84

AREA, CITIZENSHIP, AND RACIAL/ETHNIC BACKGROUND	FULL TIME					PART TIME 1/				
	1980	1981	1982	1983	1984	1980	1981	1982	1983	1984
TOTAL, ALL AREAS:	249,159	252,997	255,297	263,750	264,146	133,941	138,643	143,685	149,697	150,918
TOTAL US CITIZENS	198,429	198,015	197,374	200,966	199,693	-	-	133,190	138,119	139,388
BLACK, NON-HISPANIC	6,607	6,344	7,225	7,474	7,580	5,020	4,800	6,100	7,005	7,259
AMERICAN INDIAN/ALASKAN NATIVE	661	516	712	774	725	254	231	464	446	399
ASIAN/PACIFIC ISLANDER	5,394	4,925	5,657	6,460	7,171	2,830	2,862	3,678	4,200	4,195
HISPANIC	4,922	4,521	5,496	6,486	6,640	2,490	2,761	3,830	4,683	4,436
WHITE, NON-HISPANIC	149,481	141,674	159,171	168,096	164,661	79,174	77,741	102,410	108,815	107,974
OTHER OR UNKNOWN	31,364	40,035	19,113	11,676	12,917	-	-	16,708	12,970	15,125
FOREIGN	50,730	54,982	57,923	62,784	64,452	-	-	10,495	11,578	11,530
ENGINEERING:	43,107	46,257	50,239	55,152	56,866	31,977	34,222	34,355	37,559	38,020
TOTAL US CITIZENS	25,108	26,443	28,816	32,139	32,916	-	-	30,569	32,895	33,382
BLACK, NON-HISPANIC	472	425	519	666	708	458	455	625	751	812
AMERICAN INDIAN/ALASKAN NATIVE	26	66	76	101	135	49	43	95	84	85
ASIAN/PACIFIC ISLANDER	1,506	1,118	1,419	1,759	2,135	1,204	1,116	1,328	1,655	1,694
HISPANIC	572	492	601	785	810	512	449	500	709	849
WHITE, NON-HISPANIC	18,603	18,411	21,677	25,194	25,601	18,371	18,858	21,699	24,589	24,638
OTHER OR UNKNOWN	3,929	5,931	4,524	3,634	3,528	-	-	6,322	5,107	5,304
FOREIGN	17,999	19,814	21,423	23,013	23,949	-	-	3,786	4,664	4,638
SCIENCES, TOTAL:	206,052	206,740	205,058	208,598	207,280	101,964	104,421	109,330	112,138	112,897
TOTAL US CITIZENS	173,321	171,572	168,558	168,827	166,777	-	-	102,621	105,224	106,006
BLACK, NON-HISPANIC	6,135	5,919	6,706	6,808	6,872	4,562	4,345	5,475	6,254	6,447
AMERICAN INDIAN/ALASKAN NATIVE	635	450	636	673	589	205	188	369	362	313
ASIAN/PACIFIC ISLANDER	3,888	3,807	4,238	4,701	5,036	1,626	1,746	2,350	2,545	2,501
HISPANIC	4,350	4,029	4,895	5,701	5,830	1,978	2,312	3,330	3,974	3,588
WHITE, NON-HISPANIC	130,878	123,263	137,494	142,902	139,060	60,803	58,883	80,711	84,226	83,335
OTHER OR UNKNOWN	27,435	34,104	14,589	8,042	9,389	-	-	10,386	7,863	9,822
FOREIGN	32,731	35,168	36,500	39,771	40,503	-	-	6,709	6,914	6,892
PHYSICAL SCIENCES:	22,918	23,308	24,040	25,213	25,666	4,034	4,074	4,159	4,262	4,142
TOTAL US CITIZENS	17,174	17,037	17,555	17,981	18,187	-	-	3,699	3,832	3,719
BLACK, NON-HISPANIC	323	328	418	412	438	96	107	135	163	154
AMERICAN INDIAN/ALASKAN NATIVE	13	15	32	40	63	1	4	18	5	14
ASIAN/PACIFIC ISLANDER	513	485	532	590	751	113	138	165	159	139
HISPANIC	305	324	387	449	464	65	49	109	114	75
WHITE, NON-HISPANIC	13,919	13,549	14,742	15,478	15,182	2,404	2,307	2,947	3,185	3,149
OTHER OR UNKNOWN	2,101	2,336	1,444	1,012	1,289	-	-	325	206	188
FOREIGN	5,744	6,271	6,485	7,232	7,479	-	-	460	430	423
ENVIRONMENTAL SCIENCES:	10,969	11,038	11,436	12,089	11,528	3,239	3,384	3,738	3,520	3,582
TOTAL US CITIZENS	9,570	9,534	9,789	10,391	9,973	-	-	3,501	3,343	3,371
BLACK, NON-HISPANIC	66	71	76	83	84	38	31	27	29	24
AMERICAN INDIAN/ALASKAN NATIVE	38	10	17	24	18	0	5	5	3	5
ASIAN/PACIFIC ISLANDER	143	101	136	158	134	27	25	72	85	41
HISPANIC	115	130	132	146	206	34	24	59	81	78
WHITE, NON-HISPANIC	7,523	7,114	8,388	9,348	8,546	2,230	2,069	3,005	3,023	3,004
OTHER OR UNKNOWN	1,685	2,108	1,040	632	985	-	-	333	122	219
FOREIGN	1,399	1,504	1,647	1,698	1,556	-	-	237	177	210
MATHEMATICAL SCIENCES:	9,902	10,154	10,823	10,971	11,223	5,458	5,761	6,376	6,472	5,740
TOTAL US CITIZENS	6,648	6,513	6,935	6,726	6,710	-	-	5,733	5,756	5,113
BLACK, NON-HISPANIC	141	138	174	164	183	159	166	183	240	213
AMERICAN INDIAN/ALASKAN NATIVE	25	5	20	12	4	13	2	22	21	27
ASIAN/PACIFIC ISLANDER	205	246	298	337	296	119	139	194	227	229
HISPANIC	140	162	174	205	191	50	68	116	127	104
WHITE, NON-HISPANIC	5,042	4,793	5,571	5,589	5,453	3,034	3,261	4,587	4,742	4,022
OTHER OR UNKNOWN	1,095	1,169	698	419	583	-	-	631	399	519
FOREIGN	3,254	3,641	3,888	4,245	4,513	-	-	643	716	628
COMPUTER SCIENCES:	6,587	7,445	9,171	10,728	11,448	6,991	8,992	10,641	13,332	12,839
TOTAL US CITIZENS	4,521	4,887	5,981	6,732	6,941	-	-	9,458	11,622	11,134
BLACK, NON-HISPANIC	67	103	198	207	197	126	159	330	359	344
AMERICAN INDIAN/ALASKAN NATIVE	7	3	15	11	36	4	2	16	11	7
ASIAN/PACIFIC ISLANDER	200	264	365	558	520	369	374	525	589	589
HISPANIC	42	54	105	105	111	58	81	144	178	141
WHITE, NON-HISPANIC	2,793	3,428	4,339	5,055	5,028	3,758	3,826	7,235	8,626	7,420
OTHER OR UNKNOWN	1,412	1,035	959	796	1,049	-	-	1,208	1,859	2,634
FOREIGN	2,066	2,558	3,190	3,996	4,507	-	-	1,183	1,710	1,704

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TABLE 24. -- SCIE.../ENGINEERING GRADUATE STUDENTS IN ALL INSTITUTIONS
BY AREA, CITIZENSHIP, RACIAL/ETHNIC BACKGROUND, AND ENROLLMENT STATUS: 1980-84

- CONTINUED

AREA, CITIZENSHIP, AND RACIAL/ETHNIC BACKGROUND	FULL TIME					PART TIME 1/				
	1980	1981	1982	1983	1984	1980	1981	1982	1983	1984
LIFE SCIENCES, TOTAL:	72,409	72,241	70,254	70,186	69,898	30,095	30,883	32,635	33,642	35,038
TOTAL US CITIZENS	63,843	62,887	60,922	59,763	59,207	-	-	31,106	32,209	33,674
BLACK, NON-HISPANIC	1,693	1,442	1,697	1,795	1,795	1,078	1,003	1,244	1,533	1,670
AMERICAN INDIAN/ALASKAN NATIVE	172	137	191	222	174	68	46	96	112	91
ASIAN/PACIFIC ISLANDER	1,444	1,391	1,622	1,694	1,826	457	439	603	680	700
HISPANIC	1,491	977	1,338	1,776	1,815	521	427	603	811	783
WHITE, NON-HISPANIC	50,711	47,740	51,880	52,582	51,923	20,476	19,761	26,344	27,483	28,670
OTHER OR UNKNOWN	7,332	11,180	3,794	1,754	1,714	-	-	2,216	1,880	1,889
FOREIGN	8,566	9,354	9,732	10,423	10,692	-	-	1,529	1,433	1,364
AGRICULTURAL SCIENCES:	9,980	10,076	9,891	9,836	9,745	2,274	2,024	2,423	2,484	2,286
TOTAL US CITIZENS	7,784	7,701	7,508	7,368	7,270	-	-	2,206	2,230	2,048
BLACK, NON-HISPANIC	91	92	123	112	111	17	34	22	21	30
AMERICAN INDIAN/ALASKAN NATIVE	19	9	12	20	17	0	4	13	12	4
ASIAN/PACIFIC ISLANDER	138	97	117	113	127	20	25	21	20	17
HISPANIC	221	134	164	182	215	64	34	46	41	94
WHITE, NON-HISPANIC	6,369	6,328	6,556	6,690	6,703	1,443	1,381	1,948	1,977	1,792
OTHER OR UNKNOWN	1,029	1,041	536	251	96	-	-	156	159	129
FOREIGN	2,196	2,375	2,383	2,468	2,475	-	-	217	224	218
BIOLOGICAL SCIENCES:	37,928	37,582	36,989	37,110	37,554	9,962	9,397	9,321	8,981	8,676
TOTAL US CITIZENS	33,340	32,727	31,950	31,586	31,658	-	-	8,742	8,426	8,031
BLACK, NON-HISPANIC	719	652	784	841	804	267	267	344	332	329
AMERICAN INDIAN/ALASKAN NATIVE	48	33	67	90	67	8	7	25	31	22
ASIAN/PACIFIC ISLANDER	937	805	906	1,025	1,119	178	157	225	250	196
HISPANIC	609	457	618	720	707	159	129	192	192	146
WHITE, NON-HISPANIC	27,047	25,470	27,761	28,027	28,127	6,633	5,894	7,082	7,008	6,935
OTHER OR UNKNOWN	3,984	5,310	1,814	883	834	-	-	874	613	403
FOREIGN	4,588	4,855	5,039	5,524	5,896	-	-	579	555	645
HEALTH SCIENCES:	24,501	24,583	23,374	23,240	22,599	17,859	19,462	20,891	22,207	24,073
TOTAL US CITIZENS	22,449	22,429	21,064	20,809	20,279	-	-	20,158	21,553	23,575
BLACK, NON-HISPANIC	827	698	790	782	840	794	702	878	1,179	1,311
AMERICAN INDIAN/ALASKAN NATIVE	105	85	112	112	90	60	35	58	80	66
ASIAN/PACIFIC ISLANDER	582	489	599	556	580	259	257	357	410	487
HISPANIC	621	386	554	574	592	298	264	365	578	541
WHITE, NON-HISPANIC	17,400	15,942	17,563	17,865	17,094	12,400	12,486	17,314	18,498	20,143
OTHER OR UNKNOWN	2,914	4,829	1,444	420	784	-	-	1,186	808	1,027
FOREIGN	2,052	2,154	2,310	2,431	2,320	-	-	733	654	498
PSYCHOLOGY:	26,692	26,725	25,818	26,759	25,327	13,944	13,966	14,280	14,370	15,330
TOTAL US CITIZENS	25,482	25,721	24,739	25,667	24,290	-	-	13,965	14,030	14,990
BLACK, NON-HISPANIC	1,017	983	1,021	1,145	1,129	401	467	622	771	939
AMERICAN INDIAN/ALASKAN NATIVE	185	48	78	92	86	48	45	61	44	37
ASIAN/PACIFIC ISLANDER	302	328	319	368	404	70	78	122	164	162
HISPANIC	971	995	1,032	1,146	1,140	327	276	439	684	583
WHITE, NON-HISPANIC	17,612	16,001	19,198	21,379	20,072	7,124	7,496	11,123	11,347	11,888
OTHER OR UNKNOWN	5,395	7,406	3,091	1,537	1,460	-	-	1,598	1,020	1,382
FOREIGN	1,210	1,004	1,079	1,092	1,036	-	-	315	340	340
SOCIAL SCIENCES:	56,575	55,829	53,516	52,652	52,190	38,203	37,361	37,501	36,540	36,230
TOTAL US CITIZENS	46,383	45,023	43,037	41,567	41,469	-	-	35,159	34,432	34,004
BLACK, NON-HISPANIC	2,888	2,854	3,122	3,062	3,085	2,664	2,412	2,934	3,160	3,104
AMERICAN INDIAN/ALASKAN NATIVE	195	242	283	272	208	71	84	151	155	131
ASIAN/PACIFIC ISLANDER	881	992	966	996	1,106	471	553	669	641	641
HISPANIC	1,326	1,427	1,727	1,874	1,904	923	1,387	1,860	1,979	1,824
WHITE, NON-HISPANIC	33,273	30,638	33,376	33,471	32,857	21,777	20,163	25,470	25,820	24,982
OTHER OR UNKNOWN	7,820	8,870	3,563	1,892	2,309	-	-	4,075	2,677	3,322
FOREIGN	10,192	10,806	10,479	11,085	10,721	-	-	2,342	2,108	2,226

1/ FOR PART-TIME STUDENTS, DISTRIBUTION BY CITIZENSHIP WAS NOT REQUESTED PRIOR TO 1982.
SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 25. -- SCIENCE/ENGINEERING GRADUATE STUDENTS IN DOCTORATE-GRANTING INSTITUTIONS BY FIELD: 1977-84

FIELD	NUMBER								AVERAGE ANNUAL PERCENT CHANGE		
	1977	1978	1979	1980	1981	1982	1983	1984	1977-83	1983-84	1977-84
TOTAL, ALL FIELDS	306,569	309,835	320,580	333,669	339,968	346,796	358,158	363,470	2.6	1.5	2.5
ENGINEERING	64,423	64,269	67,152	70,143	74,373	78,178	85,967	88,215	4.9	2.6	4.6
AEROSPACE	1,496	1,450	1,476	1,730	1,876	1,933	2,376	2,413	8.0	1.6	7.1
AGRICULTURAL	709	742	740	742	802	875	969	954	5.3	-1.5	4.3
BIOMEDICAL	870	936	1,006	963	1,012	1,064	1,185	1,288	5.3	8.7	5.8
CHEMICAL	5,071	5,184	5,420	5,859	6,264	6,929	7,352	7,196	6.4	-2.1	5.1
CIVIL	11,800	11,920	12,281	12,574	13,301	13,531	14,506	14,843	3.5	2.3	3.3
ELECTRICAL	16,356	16,478	16,818	18,140	18,900	20,582	22,101	24,542	5.9	6.2	6.0
ENGINEERING SCIENCE	1,620	1,710	1,516	1,633	1,753	1,840	1,981	1,900	3.4	-4.1	2.3
INDUSTRIAL	8,650	8,967	10,114	9,196	9,188	9,008	9,804	10,006	.3	2.1	.5
MECHANICAL	8,132	8,122	8,554	9,155	9,913	10,767	12,089	12,966	6.8	7.3	6.9
METALLURGICAL/MATERIALS	2,490	2,487	2,656	2,539	3,047	3,030	3,338	3,572	5.0	7.0	5.3
MINING	445	410	383	406	444	424	498	477	1.9	-4.2	1.0
NUCLEAR	1,472	1,391	1,314	1,241	1,283	1,301	1,203	1,234	-3.3	2.6	-2.5
PETROLEUM	379	427	423	491	518	580	724	732	11.4	1.1	9.9
ENGINEERING, N.E.C.	3,933	4,045	4,451	5,174	6,072	6,314	6,841	6,092	9.7	-10.9	6.5
SCIENCES, TOTAL	242,146	245,566	253,428	263,526	265,595	268,618	272,191	275,255	2.0	1.1	1.8
PHYSICAL SCIENCES	24,816	24,718	24,924	25,393	25,780	26,499	27,727	28,413	1.9	2.5	2.0
ASTRONOMY	649	630	652	628	597	632	618	639	-.8	3.4	-.2
CHEMISTRY	14,603	14,802	14,886	15,105	15,244	15,778	16,525	16,599	2.1	.4	1.8
PHYSICS	9,473	9,198	9,319	9,579	9,844	10,018	10,515	10,988	1.8	4.5	2.1
PHYSICAL SCIENCES, N.E.C.	91	88	67	81	75	71	69	187	-4.5	171.0	10.8
ENVIRONMENTAL SCIENCES	12,301	12,243	12,575	12,795	13,063	13,757	14,267	14,326	2.5	.4	2.2
ATMOSPHERIC SCIENCES	914	871	840	870	873	877	884	895	-.6	1.2	-.3
GEOSCIENCES	7,515	7,634	7,973	8,125	8,287	9,046	9,686	9,716	4.3	.3	3.7
OCEANOGRAPHY	1,913	1,833	1,829	1,847	1,933	1,934	1,907	1,929	-.1	1.2	.1
ENVIRONMENTAL SCIENCES, N.E.C.	1,959	1,905	1,933	1,953	1,970	1,900	1,790	1,786	-1.5	-.2	-1.3
MATHEMATICAL SCIENCES	13,894	13,194	13,180	13,625	14,004	14,758	14,872	15,045	1.1	1.2	1.1
COMPUTER SCIENCES	7,232	8,329	9,488	11,384	13,141	15,576	18,739	20,385	17.2	8.8	16.0
LIFE SCIENCES	83,344	85,915	87,462	90,660	90,908	90,703	91,224	92,646	1.5	1.6	1.5
AGRICULTURAL SCIENCES	10,947	11,088	11,294	11,579	11,347	11,577	11,515	11,331	.8	-1.6	.5
BIOLOGICAL SCIENCES	43,157	43,135	42,581	42,676	41,983	41,877	41,556	42,274	-.6	1.7	-.3
ANATOMY	1,188	1,164	1,133	1,082	1,072	1,074	1,037	1,046	-2.2	.9	-1.8
BIOCHEMISTRY	3,821	3,976	3,924	3,991	4,022	4,090	4,194	4,477	1.6	6.7	2.3
BIOLOGY	11,720	11,164	10,889	10,782	10,152	9,870	9,754	9,769	-3.0	.2	-2.6
BIOMETRY/EPIDEMIOLOGY	1,058	1,140	1,128	1,259	1,182	1,166	1,156	1,006	1.5	-13.0	-.7
BIOPHYSICS	570	525	525	485	463	440	450	433	-3.9	-3.8	-3.9
BOTANY	3,821	3,746	3,575	3,561	3,457	3,602	3,405	3,371	-1.9	-1.0	-1.8
CELL BIOLOGY	825	847	894	965	1,018	1,143	1,212	1,316	6.6	8.6	6.9
ECOLOGY	1,020	1,090	954	1,130	1,048	1,018	962	1,034	-1.0	7.5	.2
ENTOMOLOGY/PARASITOLOGY	1,602	1,683	1,697	1,722	1,664	1,540	1,475	1,438	-1.4	-2.5	-1.5
GENETICS	978	958	922	912	887	940	986	1,012	.1	2.6	.5
MICROBIOLOGY	4,201	4,090	3,978	3,978	3,889	3,992	4,099	4,216	-.4	2.9	.1
NUTRITION	3,595	3,730	3,676	3,853	4,121	4,103	4,096	4,067	2.2	-.7	1.8
PATHOLOGY	1,316	1,348	1,420	1,390	1,404	1,413	1,419	1,429	1.3	.7	1.2
PHARMACOLOGY	1,791	1,896	1,996	2,005	2,013	2,073	2,063	2,048	2.4	-.7	1.9
PHYSIOLOGY	2,058	2,169	2,192	2,104	2,144	2,058	1,994	2,175	-.5	9.1	.8
ZOOLOGY	3,030	2,983	2,863	2,650	2,584	2,471	2,390	2,266	-3.9	-5.2	-4.1
BIOSCIENCES, N.E.C.	563	626	815	807	863	884	864	1,171	7.4	35.5	11.0
HEALTH SCIENCES	29,240	31,692	33,587	36,405	37,578	37,249	38,153	39,041	4.5	2.3	4.2
DENTISTRY	960	968	1,029	1,002	942	836	776	850	-3.5	9.5	-1.7
NEUROLOGY	233	241	232	220	177	190	247	303	1.0	22.7	3.8
NURSING	9,987	10,844	11,601	12,750	14,071	14,297	14,924	15,913	6.9	6.6	6.9
PHARMACEUTICAL SCIENCES	2,444	2,491	2,412	2,408	2,523	2,496	2,612	2,487	1.1	-4.8	.2
PREVENTIVE MEDICINE/ COMMUNITY HEALTH	4,456	5,510	6,299	7,013	7,130	6,676	6,005	6,125	5.1	2.0	4.6
SPEECH PATHOLOGY/AUDIOLOGY	6,421	6,705	6,461	6,748	6,545	6,756	6,812	6,112	1.0	-10.3	-.7
VETERINARY SCIENCES	466	465	520	496	458	446	440	531	-1.0	20.7	1.9
CLINICAL MEDICINE, N.E.C.	1,303	1,168	1,191	1,200	1,216	1,321	1,301	1,304	*	.2	*
HEALTH RELATED, N.E.C.	2,970	3,300	3,842	4,568	4,516	4,231	5,036	5,416	9.2	7.5	9.0
PSYCHOLOGY	28,058	27,911	27,973	29,384	29,052	29,082	29,090	30,318	.6	4.2	1.1
SOCIAL SCIENCES	72,501	73,256	77,826	80,285	79,647	78,243	76,272	74,122	.8	-2.8	.3
AGRICULTURAL ECONOMICS	2,198	2,230	2,198	2,301	2,235	2,223	2,237	2,208	.3	-1.3	.1
ANTHROPOLOGY	6,188	5,893	5,911	5,923	5,805	5,688	5,399	5,371	-2.2	-.5	-2.0
ECONOMICS (EXCEPT AGRICULTURAL)	11,115	11,214	11,286	12,231	12,407	12,652	12,440	12,012	1.9	-3.4	1.1
GEOGRAPHY	2,798	2,781	2,581	2,723	2,736	2,705	2,627	2,604	-1.0	-.9	-1.0
HISTORY AND PHILOSOPHY OF SCIENCE	300	281	265	280	248	256	253	274	-2.8	8.3	-1.3
LINGUISTICS	2,395	2,307	2,926	2,872	3,010	2,674	2,813	2,920	2.7	3.8	2.9
POLITICAL SCIENCE	19,891	20,685	23,582	24,447	24,001	23,779	22,409	20,311	2.0	-9.4	.3
SOCIOLOGY	7,773	7,009	7,202	7,216	7,037	6,653	6,389	6,153	-3.2	-3.7	-3.3
SOCIOLOGY/ANTHROPOLOGY	1,266	1,166	1,138	1,095	1,021	1,042	1,014	960	-3.6	-5.3	-3.9
SOCIAL SCIENCES, N.E.C.	18,577	19,690	20,737	21,197	21,147	20,571	20,691	21,309	1.8	3.0	2.0

* LESS THAN 0.05 PERCENT CHANGE
SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 26. -- SCIENCE/ENGINEERING GRADUATE STUDENTS IN DOCTORATE-GRANTING INSTITUTIONS BY GEOGRAPHIC DISTRIBUTION: 1977-84

DIVISION AND STATE	NUMBER								AVERAGE ANNUAL PERCENT CHANGE		
	1977	1978	1979	1980	1981	1982	1983	1984	1977-83	1983-84	1977-84
TOTAL, ALL INSTITUTIONS	306,569	309,835	320,580	333,669	339,968	346,796	358,158	363,470	2.6	1.5	2.5
NEW ENGLAND	22,209	22,917	23,970	25,633	26,215	26,810	28,128	28,374	4.0	.9	3.6
CONNECTICUT	3,418	3,474	3,626	3,902	4,083	4,182	4,271	4,243	3.8	-.7	3.1
MAINE	469	487	475	447	395	416	509	580	1.4	13.9	3.1
MASSACHUSETTS	15,444	16,087	16,904	18,286	18,730	19,056	20,063	20,249	4.5	.9	3.9
NEW HAMPSHIRE	723	644	701	743	723	782	800	807	1.7	.9	1.6
RHODE ISLAND	1,675	1,783	1,788	1,700	1,739	1,739	1,851	1,834	1.7	-.9	1.3
VERMONT	480	450	504	527	545	635	634	661	4.7	4.3	4.7
MIDDLE ATLANTIC	54,373	54,340	56,764	61,005	64,822	65,222	67,368	69,339	3.6	2.9	3.5
NEW JERSEY	7,298	8,795	8,881	9,182	9,332	9,172	9,619	10,580	4.7	10.0	5.4
NEW YORK	33,111	31,868	33,766	36,071	38,564	39,108	40,185	41,146	3.3	2.4	3.2
PENNSYLVANIA	13,964	13,677	14,147	15,752	16,926	16,942	17,564	17,613	3.9	.3	3.4
EAST NORTH CENTRAL	57,075	57,016	58,440	60,007	59,761	60,533	62,796	63,204	1.6	.6	1.5
ILLINOIS	14,650	14,916	15,499	16,122	16,073	16,095	16,799	17,059	2.3	1.5	2.2
INDIANA	7,253	7,113	7,101	7,345	7,694	7,919	8,207	7,491	2.1	-8.7	.5
MICHIGAN	12,581	12,272	13,005	12,744	12,132	12,544	12,998	13,193	.5	1.5	.7
OHIO	14,802	15,126	15,268	15,773	15,922	16,099	16,803	17,381	2.1	3.4	2.3
WISCONSIN	7,789	7,590	7,567	8,023	7,940	7,876	7,989	8,080	.4	1.1	.5
WEST NORTH CENTRAL	22,536	22,793	22,933	23,723	23,552	24,093	24,718	24,764	1.6	.2	1.4
IOWA	4,006	4,268	4,468	4,541	4,385	4,682	4,938	4,831	3.5	-2.2	2.7
KANSAS	4,178	4,400	4,272	4,356	4,234	4,216	4,492	4,402	1.2	-2.0	.7
MINNESOTA	4,814	4,814	4,993	5,097	5,209	5,202	5,267	5,404	1.5	2.6	1.7
MISSOURI	6,030	5,742	5,699	5,983	5,813	6,031	5,841	6,048	-.5	3.5	*
NEBRASKA	2,112	2,073	2,111	2,138	2,326	2,284	2,397	2,346	2.1	-2.1	1.5
NORTH DAKOTA	836	858	776	907	913	946	994	957	2.9	-3.7	1.9
SOUTH DAKOTA	560	638	614	701	672	732	789	776	5.9	-1.6	4.8
SOUTH ATLANTIC	44,006	45,928	47,568	49,519	51,214	52,065	52,818	54,226	3.1	2.7	3.0
DELAWARE	884	884	1,031	1,084	1,135	1,173	1,180	1,112	4.9	-5.8	3.3
DISTRICT OF COLUMBIA	9,050	8,714	9,089	8,830	9,641	8,649	8,245	8,669	-1.5	5.1	-.6
FLORIDA	7,198	7,974	8,808	9,623	10,333	10,916	11,319	11,647	7.8	2.9	7.1
GEORGIA	4,862	5,087	5,200	5,672	5,766	5,913	5,892	6,437	3.3	9.2	4.1
MARYLAND	5,679	5,894	5,896	5,185	5,431	5,484	5,892	5,973	.6	1.4	.7
NORTH CAROLINA	5,886	6,329	6,661	6,725	6,664	7,116	7,363	7,449	3.8	1.2	3.4
SOUTH CAROLINA	2,833	2,768	2,780	2,760	2,826	2,944	3,017	3,150	1.1	4.4	1.5
VIRGINIA	5,686	6,876	6,107	6,931	7,011	7,153	7,273	7,906	4.2	8.7	4.8
WEST VIRGINIA	1,942	2,304	2,236	2,709	2,407	2,717	2,637	1,883	5.2	-28.6	-.4
EAST SOUTH CENTRAL	12,799	13,018	13,121	13,163	12,655	12,867	13,168	13,680	.5	3.9	1.0
ALABAMA	3,181	3,396	3,488	3,380	3,276	3,296	3,366	3,706	.9	10.1	2.2
KENTUCKY	2,478	2,484	2,468	2,471	2,709	2,827	2,865	2,904	2.5	1.4	2.3
MISSISSIPPI	1,868	1,970	1,998	1,993	1,841	1,953	2,063	2,264	1.8	9.7	2.9
TENNESSEE	9,281	9,238	9,176	9,349	4,829	4,791	4,874	4,804	-1.3	-1.4	-1.3
WEST SOUTH CENTRAL	26,434	26,813	27,178	28,026	28,205	30,249	32,741	33,374	3.6	1.9	3.4
ARKANSAS	1,044	1,086	1,068	1,060	1,164	1,224	1,189	1,211	2.2	1.9	2.1
LOUISIANA	3,100	3,484	3,518	3,496	3,862	4,084	4,344	4,564	5.8	5.1	5.7
OKLAHOMA	3,726	3,757	3,718	3,895	3,475	3,721	4,066	4,029	1.5	-.9	1.1
TEXAS	18,564	18,516	18,877	19,515	19,704	21,220	23,142	23,570	3.7	1.8	3.5
MOUNTAIN	19,827	20,077	20,496	21,102	21,428	22,841	23,064	22,977	2.6	-.4	2.1
ARIZONA	4,729	4,752	5,027	5,228	5,593	6,397	6,384	6,485	5.1	1.6	4.6
COLORADO	6,821	6,608	6,883	6,881	6,885	6,923	6,702	6,456	-.3	-3.7	-.8
IDAHO	1,192	1,191	951	968	913	937	1,004	970	-2.8	-3.4	-2.9
MONTANA	763	772	758	830	810	976	1,019	1,030	4.9	1.1	4.4
NEVADA	469	435	477	480	464	413	532	561	2.1	5.5	2.6
NEW MEXICO	1,809	2,059	2,086	2,203	2,296	2,372	2,551	2,464	5.9	-3.4	4.5
UTAH	3,369	3,582	3,666	3,882	3,737	4,021	4,037	4,232	3.1	4.8	3.3
WYOMING	675	678	651	660	730	802	835	779	3.6	-6.7	2.1
PACIFIC	45,708	45,785	48,572	49,538	50,132	50,008	50,974	50,956	1.8	*	1.6
ALASKA	228	251	270	272	320	355	424	352	10.9	-17.0	6.4
CALIFORNIA	35,019	34,935	37,545	37,918	38,974	39,181	40,009	39,636	2.2	-.9	1.8
HAWAII	1,543	1,501	1,453	2,004	2,012	2,053	1,969	1,936	4.1	-1.5	3.3
OREGON	3,135	3,262	3,299	3,216	3,141	3,175	3,305	3,484	.9	4.6	1.4
WASHINGTON	5,783	5,836	6,005	6,128	5,685	5,244	5,271	5,576	-1.5	5.8	-.5
OUTLYING AREAS	1,606	1,548	1,541	1,953	1,984	2,108	2,383	2,576	6.8	8.1	7.0

* LESS THAN 0.05 PERCENT CHANGE
SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 27. -- DOCTORATE-GRANTING INSTITUTIONS RANKED BY TOTAL SCIENCE/ENGINEERING GRADUATE ENROLLMENT: 1980-84

INSTITUTIONAL RANKING	1980	1981	1982	1983	1984
TOTAL, ALL INSTITUTIONS	332,858	339,951	346,796	358,158	363,470
1 UNIVERSITY OF SOUTHERN CALIFORNIA	7,420	7,507	7,651	8,343	7,341
2 UNIVERSITY OF CALIF AT BERKELEY	5,513	5,598	5,400	5,381	5,545
3 UNIVERSITY OF WISCONSIN - MADISON	5,320	5,405	5,346	5,247	5,411
4 UNIVERSITY OF MINNESOTA	5,097	5,209	5,202	5,249	5,372
5 OHIO STATE UNIVERSITY	4,731	4,787	4,704	4,917	4,874
6 UNIV OF TEXAS AT AUSTIN	3,784	4,032	4,286	4,745	4,744
7 UNIVERSITY OF PITTSBURGH	3,649	4,558	4,643	4,694	4,717
8 UNIVERSITY OF MICHIGAN	4,414	4,401	4,310	4,533	4,561
9 MASSACHUSETTS INSTITUTE OF TECHNOLOGY	4,091	3,950	3,886	4,466	4,472
10 UNIVERSITY OF ILLINOIS - URBANA	4,249	4,313	4,494	4,556	4,326
TOTAL, 1ST 10 INSTS.	48,268	49,760	49,922	52,131	51,363
11 RUTGERS THE STATE UNIVERSITY	4,260	4,247	4,078	4,387	4,212
12 UNIVERSITY OF WASHINGTON	4,701	4,231	3,870	3,904	4,169
13 STANFORD UNIVERSITY	3,685	3,844	4,026	4,297	4,134
14 UNIVERSITY OF CALIF AT LOS ANGELES	4,220	4,266	4,084	4,198	4,107
15 TEXAS A & M UNIVERSITY	3,266	3,365	3,679	3,907	3,929
16 GEORGE WASHINGTON UNIVERSITY	3,478	3,790	3,308	3,388	3,664
17 PENNSYLVANIA STATE UNIVERSITY	3,335	3,573	3,503	3,557	3,628
18 PURDUE UNIVERSITY	3,700	3,917	4,192	4,322	3,586
19 UNIVERSITY OF ARIZONA	3,209	3,169	3,159	3,295	3,449
20 UNIVERSITY OF MARYLAND - COLLEGE PARK	2,700	2,867	2,975	3,196	3,333
TOTAL, 1ST 20 INSTS.	84,822	87,029	86,796	90,582	89,570
21 NEW YORK UNIVERSITY	3,302	3,372	3,911	3,853	3,322
22 CORNELL UNIVERSITY	2,980	3,048	3,011	3,113	3,240
23 MICHIGAN STATE UNIVERSITY	3,311	3,050	3,079	3,201	3,125
24 UNIVERSITY OF COLORADO	3,545	3,517	3,501	3,187	3,070
25 UNIVERSITY OF FLORIDA	2,534	2,603	2,812	2,849	3,049
26 FLORIDA INSTITUTE OF TECHNOLOGY	2,120	2,715	2,720	2,904	3,049
27 SUNY - BUFFALO	2,057	2,089	2,260	2,338	3,041
28 COLUMBIA UNIVERSITY MAIN DIVISION	2,945	2,991	3,159	2,993	3,020
29 HARVARD UNIVERSITY	2,687	3,042	3,071	2,842	3,013
30 VIRGINIA POLYTECHNIC INST AND STATE UNIV	2,288	2,350	2,373	2,555	2,838
TOTAL, 1ST 30 INSTS.	112,591	115,806	116,693	120,417	120,337
31 NORTHEASTERN UNIVERSITY	3,428	3,426	3,399	3,539	2,825
32 NORTH CAROLINA STATE UNIV AT RALEIGH	2,221	2,252	2,527	2,634	2,729
33 UNIVERSITY OF ILLINOIS AT CHICAGO	2,761	2,327	2,428	2,530	2,708
34 UNIVERSITY OF TENNESSEE AT KNOXVILLE	3,003	2,828	2,826	2,770	2,669
35 UNIV OF NORTH CAROLINA AT CHAPEL HILL	2,487	2,473	2,553	2,638	2,604
36 BOSTON UNIVERSITY	2,436	2,539	2,482	2,592	2,595
37 UNIVERSITY OF CALIF AT DAVIS	2,654	2,854	2,682	2,557	2,571
38 IOWA STATE UNIVERSITY OF SCI & TECH	2,385	2,432	2,581	2,637	2,528
39 UNIVERSITY OF CONNECTICUT	2,203	2,257	2,396	2,460	2,526
40 UNIVERSITY OF CINCINNATI	2,381	2,420	2,422	2,468	2,519
TOTAL, 1ST 40 INSTS.	138,550	141,614	142,989	147,242	146,611
41 SYRACUSE UNIVERSITY	1,974	2,082	2,172	2,388	2,454
42 ARIZONA STATE UNIVERSITY	1,624	1,994	2,424	2,446	2,444
43 UNIVERSITY OF PENNSYLVANIA	2,708	2,619	2,642	2,573	2,436
44 INDIANA UNIVERSITY	2,336	2,376	2,271	2,362	2,411
45 UNIVERSITY OF MASSACHUSETTS AT AMHERST	2,084	2,006	2,170	2,317	2,407
46 LONG ISLAND UNIVERSITY	2,290	2,130	2,096	1,945	2,376
47 GEORGIA INSTITUTE OF TECHNOLOGY	1,931	1,998	2,019	2,000	2,339
48 UNIVERSITY OF OKLAHOMA	2,157	1,892	1,993	2,294	2,310
49 SUNY - STONY BROOK	2,317	2,413	2,261	2,297	2,261
50 WAYNE STATE UNIVERSITY	2,117	1,831	2,124	2,149	2,295
TOTAL, 1ST 50 INSTS.	160,088	162,955	165,161	170,013	170,304

CONTINUED ON NEXT PAGE.

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TABLE 27. -- DOCTORATE-GRANTING INSTITUTIONS RANKED BY TOTAL SCIENCE/ENGINEERING GRADUATE ENROLLMENT: 1980-84

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INSTITUTIONAL RANKING	1980	1981	1982	1983	1984
51 UNIVERSITY OF KANSAS	2,264	2,212	2,255	2,387	2,215
52 UNIVERSITY OF IOWA	2,090	1,877	2,031	2,226	2,204
53 UNIVERSITY OF UTAH	1,915	1,917	1,942	2,052	2,111
54 UNIV OF TEXAS AT ARLINGTON	1,670	1,723	1,862	1,901	2,100
55 UNIVERSITY OF MISSOURI - COLUMBIA	1,895	1,954	2,060	1,949	2,066
56 LOUISIANA STATE UNIVERSITY SYSTEM	1,582	1,638	1,823	1,852	2,045
57 TEXAS WOMAN'S UNIVERSITY	1,492	1,660	1,680	1,945	1,977
58 UNIVERSITY OF HAWAII AT MANOA	2,004	2,012	2,053	1,965	1,936
59 SAN DIEGO STATE UNIVERSITY	1,617	1,812	2,068	1,905	1,903
60 UNIVERSITY OF SOUTH CAROLINA	1,702	1,774	1,814	1,814	1,896
TOTAL, 1ST 60 INSTS.	178,319	181,534	184,749	190,009	190,757
61 UNIVERSITY OF WISCONSIN - MILWAUKEE	1,871	1,843	1,789	1,936	1,885
62 CASE WESTERN RESERVE UNIVERSITY	1,661	1,676	1,736	1,779	1,848
63 CUNY GRADUATE SCHOOL AND UNIV CENTER	1,733	1,812	1,830	1,815	1,835
64 RENSSELAER POLYTECHNIC INSTITUTE	1,548	1,643	1,695	1,825	1,822
65 UNIVERSITY OF KENTUCKY	1,603	1,648	1,797	1,716	1,819
66 COLORADO STATE UNIVERSITY	1,675	1,803	1,831	1,813	1,757
67 STEVENS INSTITUTE OF TECHNOLOGY	1,274	1,433	1,222	1,300	1,750
68 ILLINOIS INSTITUTE OF TECHNOLOGY	1,629	1,788	1,737	1,784	1,745
69 POLYTECHNIC INSTITUTE OF NEW YORK	2,134	2,304	1,345	1,540	1,743
70 UNIVERSITY OF GEORGIA	1,796	1,779	1,869	1,731	1,740
TOTAL, 1ST 70 INSTS.	195,203	199,233	201,560	207,248	208,701
71 UNIVERSITY OF LOWELL	937	1,124	1,278	1,408	1,738
72 OREGON STATE UNIVERSITY	1,768	1,692	1,622	1,687	1,732
73 WEST VIRGINIA UNIVERSITY	2,128	2,142	2,484	2,486	1,728
74 COLUMBIA UNIVERSITY TEACHERS COLLEGE	1,271	1,733	1,690	1,400	1,713
75 NEW JERSEY INSTITUTE OF TECHNOLOGY	828	830	849	940	1,692
76 NORTHWESTERN UNIVERSITY	1,515	1,536	1,590	1,635	1,680
77 UNIVERSITY OF VIRGINIA	1,495	1,479	1,529	1,539	1,631
78 CATHOLIC UNIVERSITY OF AMERICA	1,718	1,719	1,713	1,577	1,630
79 YALE UNIVERSITY	1,604	1,688	1,686	1,707	1,612
80 NEW SCHOOL FOR SOCIAL RESEARCH	1,646	1,693	1,923	1,726	1,585
TOTAL, 1ST 80 INSTS.	210,113	214,786	217,896	223,323	225,442
81 FLORIDA STATE UNIVERSITY	1,514	1,516	1,650	1,598	1,559
82 UNIVERSITY OF HOUSTON-UNIVERSITY PARK	1,414	1,410	1,482	1,701	1,505
83 WESTERN MICHIGAN UNIVERSITY	1,363	1,365	1,491	1,381	1,482
84 TEMPLE UNIVERSITY	1,452	1,280	1,212	1,478	1,469
85 UNIVERSITY OF NEW MEXICO	1,415	1,432	1,442	1,540	1,456
86 UNIVERSITY OF CHICAGO	1,425	1,427	1,420	1,444	1,450
87 AMERICAN UNIVERSITY	1,618	1,833	1,705	1,459	1,442
88 UNIVERSITY OF NEBRASKA - LINCOLN	1,290	1,365	1,403	1,462	1,431
89 OKLAHOMA STATE UNIVERSITY	1,381	1,301	1,443	1,479	1,427
90 UNIVERSITY OF SANTA CLARA	872	957	1,165	1,310	1,422
TOTAL, 1ST 90 INSTS.	223,857	228,672	232,309	238,175	240,085
91 CUNY HUNTER COLLEGE	1,183	1,265	1,385	1,396	1,413
92 WASHINGTON STATE UNIVERSITY	1,427	1,454	1,374	1,367	1,411
93 NORTH TEXAS STATE UNIVERSITY	805	732	968	1,274	1,400
94 JOHNS HOPKINS UNIVERSITY	1,438	1,498	1,424	1,493	1,395
95 UNIVERSITY OF PUERTO RICO - RIO PIEDRAS	1,021	1,041	1,031	1,228	1,382
96 KANSAS STATE UNIV OF AGR & APPLIED SCI	1,323	1,249	1,266	1,331	1,377
97 VIRGINIA COMMONWEALTH UNIVERSITY	1,326	1,355	1,370	1,318	1,346
98 UNIVERSITY OF CALIF AT SANTA BARBARA	1,204	1,294	1,228	1,218	1,344
99 UNIVERSITY OF CALIF AT SAN DIEGO	1,100	1,159	1,210	1,241	1,303
100 SOUTHERN ILLINOIS UNIV AT CARBONDALE	1,062	1,044	1,127	1,288	1,289
TOTAL, 1ST 100 INSTS.	235,746	240,763	244,692	251,329	253,745
TOTAL, ALL OTHER INSTS.	97,112	99,188	102,104	106,829	109,725

NOTE: INCLUDES MEDICAL SCHOOLS
SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 39. -- SCIENCE/ENGINEERING POSTDOCTORATES IN DOCTORATE-GRANTING INSTITUTIONS BY GEOGRAPHIC DISTRIBUTION: 1979-84

DIVISION AND STATE	NUMBER						AVERAGE ANNUAL PERCENT CHANGE		
	1979	1980	1981	1982	1983	1984	1979-83	1983-84	1979-83
TOTAL, ALL INSTITUTIONS	18,086	18,411	19,646	19,366	20,762	21,666	3.5	4.4	3.7
NEW ENGLAND	2,583	2,615	2,950	2,906	3,210	3,614	5.6	12.6	6.9
CONNECTICUT	543	701	699	694	743	816	8.2	9.8	8.5
MAINE	9	8	1	7	9	12	.0	33.3	7.5
MASSACHUSETTS	1,857	1,695	2,048	2,084	2,301	2,610	5.5	13.4	7.0
NEW HAMPSHIRE	34	46	38	35	49	42	9.6	-14.3	4.3
RHODE ISLAND	85	108	95	44	87	82	-.5	43.9	-.7
VERMONT	55	57	69	50	51	52	-1.9	2.0	-1.1
MIDDLE ATLANTIC	3,406	3,401	3,464	3,346	3,558	3,587	1.1	.8	1.0
NEW JERSEY	312	305	307	334	353	341	3.1	-3.4	1.8
NEW YORK	2,274	2,325	2,310	2,202	2,210	2,252	-.7	1.9	-.2
PENNSYLVANIA	820	771	847	810	995	994	5.0	-.1	3.9
EAST NORTH CENTRAL	2,461	2,531	2,721	2,666	2,710	2,864	2.4	5.7	3.1
ILLINOIS	794	768	887	837	864	926	2.1	7.2	3.1
INDIANA	330	340	377	462	420	452	6.2	7.6	6.5
MICHIGAN	370	449	437	461	493	503	7.4	2.0	6.3
OHIO	493	498	514	498	485	511	-.4	5.4	.7
WISCONSIN	474	476	506	408	448	472	-1.4	5.4	-.1
WEST NORTH CENTRAL	1,241	1,294	1,340	1,316	1,321	1,310	1.6	-.8	1.1
IOWA	261	270	248	252	266	254	.5	-4.5	-.8
KANSAS	159	157	163	165	165	143	.9	-13.3	-2.1
MINNESOTA	309	324	359	360	363	364	4.1	.3	3.3
MISSOURI	424	445	459	448	442	459	1.0	3.8	1.6
NEBRASKA	70	70	85	63	57	66	-5.0	15.8	-1.2
NORTH DAKOTA	17	25	23	25	21	20	5.4	-4.8	3.3
SOUTH DAKOTA	1	3	3	3	7	4	62.7	-42.9	32.0
SOUTH ATLANTIC	2,045	2,175	2,268	2,349	2,427	2,595	4.4	6.9	4.9
DELAWARE	48	37	9	12	30	31	-11.1	3.3	-8.6
DISTRICT OF COLUMBIA	107	126	145	101	114	95	1.6	-16.7	-2.4
FLORIDA	247	236	283	296	313	344	6.1	9.9	6.8
GEORGIA	183	170	227	280	251	256	8.2	2.0	6.9
MARYLAND	502	546	605	641	653	755	6.8	15.6	8.5
NORTH CAROLINA	576	615	560	547	608	655	1.4	7.7	2.6
SOUTH CAROLINA	95	92	82	106	93	87	-.5	-6.5	-1.7
VIRGINIA	253	319	323	330	333	334	7.1	.3	5.7
WEST VIRGINIA	34	34	34	36	32	38	-1.5	18.8	2.2
EAST SOUTH CENTRAL	679	590	621	570	571	605	-4.2	6.0	-2.3
ALABAMA	219	203	164	163	155	170	-8.3	9.7	-4.9
KENTUCKY	90	65	99	116	148	154	13.2	4.1	11.3
MISSISSIPPI	57	41	35	40	39	41	-9.1	5.1	-6.4
TENNESSEE	313	281	323	251	229	240	-7.5	4.8	-5.2
WEST SOUTH CENTRAL	1,308	1,207	1,378	1,452	1,527	1,628	3.9	6.6	4.5
ARKANSAS	15	10	24	21	29	30	17.9	3.4	14.9
LOUISIANA	142	155	114	100	173	170	5.1	-1.7	3.7
OKLAHOMA	76	94	86	113	118	129	11.6	9.3	11.2
TEXAS	1,075	948	1,154	1,218	1,207	1,299	2.9	7.6	3.9
MOUNTAIN	731	822	969	897	988	972	7.8	-1.6	5.9
ARIZONA	202	213	275	240	275	295	8.0	7.3	7.9
COLORADO	285	349	382	372	386	350	7.9	-9.3	4.2
IDAHO	12	26	13	18	17	10	9.1	-41.2	-3.6
MONTANA	38	24	22	26	34	23	-2.7	-32.4	-9.6
NEVADA	14	19	16	12	22	18	12.0	-18.2	5.2
NEW MEXICO	46	52	52	49	41	55	-2.8	34.1	3.6
UTAH	125	139	198	166	201	200	12.6	-.5	9.9
WYOMING	9	0	11	14	12	21	7.5	75.0	18.5
PACIFIC	3,618	3,760	3,922	3,853	4,439	4,481	5.2	.9	4.4
ALASKA	3	4	3	3	3	18	.0	500.0	43.1
CALIFORNIA	2,990	3,166	3,262	3,176	3,684	3,703	5.4	.5	4.4
HAWAII	76	52	33	38	30	39	-20.7	30.0	-12.5
OREGON	148	124	154	128	173	172	4.0	-.6	3.1
WASHINGTON	401	414	470	508	549	549	8.2	.0	6.5
OUTLYING AREAS	14	16	13	11	11	10	-5.9	-9.1	-6.5

SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE 28. -- FULL-TIME SCIENCE/ENGINEERING GRADUATE STUDENTS IN DOCTORATE-GRANTING INSTITUTIONS BY TYPE AND SOURCE OF MAJOR SUPPORT: 1977 AND 1979-84 1/

TYPE AND SOURCE OF MAJOR SUPPORT	NUMBER							AVERAGE ANNUAL PERCENT CHANGE		
	1977 2/	1979	1980	1981	1982	1983	1984	1977-83	1983-84	1977-84
TOTAL, ALL TYPES:										
TOTAL, ALL SOURCES	217,453	223,409	230,535	234,194	236,939	243,596	246,848	1.9	1.3	1.8
FEDERAL, TOTAL	50,378	52,871	52,939	50,897	47,206	47,445	47,764	-1.0	.7	-.8
DEPT OF DEFENSE	4,993	4,998	5,239	5,647	5,861	6,901	7,034	5.5	1.9	5.0
DEPT OF HHS, TOTAL	21,081	22,649	19,377	18,018	16,040	15,036	15,281	-5.5	1.6	-4.5
NIH	10,928	11,660	11,560	11,283	10,860	10,852	11,220	-.1	3.4	.4
OTHER HHS	10,153	10,989	7,817	6,735	5,180	4,184	4,061	-13.7	-2.9	-12.3
NSF	9,023	9,275	9,243	9,084	9,207	9,476	9,813	.8	3.6	1.2
ALL OTHER FEDERAL	15,281	15,949	19,080	18,148	16,098	16,032	15,636	.8	-2.5	.3
INSTITUTIONAL SUPPORT	80,404	82,813	86,715	90,261	93,244	96,124	99,978	3.0	4.0	3.2
OTHER OUTSIDE SUPPORT, TOTAL	18,229	20,039	21,066	22,382	23,630	24,431	24,559	5.0	.5	4.3
ALL OTHER U.S.	11,323	12,493	13,063	13,832	14,863	15,733	16,991	5.6	5.5	5.6
FOREIGN	6,906	7,546	8,003	8,550	8,767	8,698	7,568	3.9	-8.4	2.1
SELF-SUPPORT	68,442	67,686	69,815	70,654	72,859	75,596	74,547	1.7	-1.4	1.2
FELLOWSHIPS:										
TOTAL, ALL SOURCES	39,203	20,305	20,845	20,260	21,037	21,687	21,979	-9.4	1.3	-7.9
FEDERAL, TOTAL	19,686	4,846	4,634	4,112	4,183	4,104	4,074	-23.0	-.7	-20.2
DEPT OF DEFENSE	472	228	255	182	201	257	238	-9.6	-7.4	-9.3
DEPT OF HHS, TOTAL	14,899	2,304	1,247	1,024	904	813	814	-38.4	.1	-34.0
NIH	6,256	789	777	720	656	575	617	-32.8	7.3	-28.2
OTHER HHS	8,643	1,515	470	304	248	238	197	-45.0	-17.2	-41.7
NSF	1,809	1,352	1,315	1,247	1,302	1,304	1,349	-5.3	3.5	-4.1
ALL OTHER FEDERAL	2,506	962	1,817	1,659	1,776	1,730	1,673	-4.0	-3.3	-5.6
INSTITUTIONAL SUPPORT	11,741	9,847	9,635	9,363	9,528	10,203	10,608	-2.3	4.0	-1.4
OTHER OUTSIDE SUPPORT, TOTAL	7,776	5,612	6,576	6,785	7,326	7,380	7,297	-.9	-1.1	-.9
ALL OTHER U.S.	3,991	2,881	3,190	3,187	3,619	3,807	4,135	-.8	8.6	.5
FOREIGN	3,785	2,731	3,386	3,598	3,707	3,573	3,162	-1.0	-11.5	-2.5
SELF-SUPPORT	0	0	0	0	0	0	0	0	0	0
TRAINEESHIPS:										
TOTAL, ALL SOURCES	-	18,761	18,056	17,393	14,942	13,720	13,716	**	*	**
FEDERAL, TOTAL	-	14,464	13,808	12,632	10,301	9,211	9,107	**	-1.1	**
DEPT OF DEFENSE	-	52	70	80	33	79	75	**	-5.1	**
DEPT OF HHS, TOTAL	-	13,171	11,427	10,411	8,913	7,762	7,652	**	-1.4	**
NIH	-	5,440	5,040	4,809	4,715	4,548	4,473	**	-1.6	**
OTHER HHS	-	7,731	6,387	5,602	4,198	3,214	3,179	**	-1.1	**
NSF	-	230	193	134	72	47	43	**	-8.5	**
ALL OTHER FEDERAL	-	1,011	2,118	2,007	1,283	1,323	1,337	**	1.1	**
INSTITUTIONAL SUPPORT	-	2,901	3,121	3,648	3,488	3,375	3,581	**	6.1	**
OTHER OUTSIDE SUPPORT, TOTAL	-	1,396	1,127	1,113	1,153	1,134	1,028	**	-9.3	**
ALL OTHER U.S.	-	897	808	844	856	784	766	**	-2.3	**
FOREIGN	-	499	319	269	297	350	262	**	-25.1	**
SELF-SUPPORT	-	0	0	0	0	0	0	0	0	0
RESEARCH ASSISTANTSHIPS:										
TOTAL, ALL SOURCES	43,896	48,410	50,781	51,946	51,828	54,162	57,039	3.6	5.3	3.8
FEDERAL, TOTAL	25,179	27,841	29,066	28,940	28,025	28,891	29,253	2.3	1.3	2.2
DEPT OF DEFENSE	2,637	2,795	2,924	3,280	3,460	3,920	4,033	6.8	2.9	6.3
DEPT OF HHS, TOTAL	5,272	6,143	5,968	6,011	5,721	5,932	6,333	2.0	6.8	2.7
NIH	4,307	4,991	5,371	5,454	5,206	5,385	5,787	3.8	7.5	4.3
OTHER HHS	965	1,152	597	557	515	547	546	-9.0	-.2	-7.8
NSF	7,041	7,465	7,604	7,578	7,723	8,032	8,251	2.2	2.7	2.3
ALL OTHER FEDERAL	10,229	11,438	12,570	12,071	11,121	11,007	10,636	1.2	-3.4	.6
INSTITUTIONAL SUPPORT	14,163	15,029	15,990	16,704	17,011	17,518	19,213	3.6	9.7	4.5
OTHER OUTSIDE SUPPORT, TOTAL	4,554	5,540	5,725	6,302	6,792	7,753	8,573	9.3	10.6	9.5
ALL OTHER U.S.	4,219	4,853	5,192	5,704	6,211	7,195	7,967	9.3	10.7	9.5
FOREIGN	335	687	533	598	581	558	606	8.9	8.6	8.8
SELF-SUPPORT	0	0	0	0	0	0	0	0	0	0
TEACHING ASSISTANTSHIPS:										
TOTAL, ALL SOURCES	48,665	49,588	51,838	53,800	56,068	57,884	59,180	2.9	2.2	2.8
FEDERAL, TOTAL	586	549	603	549	382	469	383	-3.6	-18.3	-5.9
DEPT OF DEFENSE	0	0	0	0	0	0	0	0	0	0
DEPT OF HHS, TOTAL	296	241	132	118	102	111	71	-15.1	-36.0	-18.5
NIH	121	109	82	75	49	74	44	-7.9	-40.5	-13.5
OTHER HHS	175	132	50	43	53	37	27	-22.8	-27.0	-23.4
NSF	35	27	30	58	24	25	24	-5.5	-4.0	-5.2
ALL OTHER FEDERAL	255	281	441	373	256	333	288	4.5	-13.5	1.8
INSTITUTIONAL SUPPORT	47,767	48,666	50,927	52,876	55,247	57,049	58,407	3.0	2.4	2.9
OTHER OUTSIDE SUPPORT, TOTAL	312	373	308	375	439	366	390	2.7	6.6	3.2
ALL OTHER U.S.	312	373	308	375	439	366	390	2.7	6.6	3.2
FOREIGN	0	0	0	0	0	0	0	0	0	0
SELF-SUPPORT	0	0	0	0	0	0	0	0	0	0
OTHER TYPES OF SUPPORT:										
TOTAL, ALL SOURCES	85,689	86,345	89,015	90,795	93,064	96,143	94,934	1.9	-1.3	1.5
FEDERAL, TOTAL	4,927	5,171	4,828	4,664	4,315	4,770	4,947	-.5	3.7	.1
DEPT OF DEFENSE	1,884	1,923	1,990	2,105	2,167	2,645	2,688	5.8	1.6	5.2
DEPT OF HHS, TOTAL	614	790	603	454	400	418	411	-6.2	-1.7	-5.6
NIH	244	331	290	225	234	270	299	-.1.7	10.7	2.9
OTHER HHS	370	459	313	229	166	148	112	-14.2	-24.3	-15.7
NSF	138	201	101	67	86	68	146	-11.1	114.7	.8
ALL OTHER FEDERAL	2,291	2,257	2,134	2,038	1,662	1,639	1,702	-5.4	3.8	-4.2
INSTITUTIONAL SUPPORT	6,733	6,370	7,042	7,670	7,970	7,979	8,169	2.9	2.4	2.8
OTHER OUTSIDE SUPPORT, TOTAL	5,587	7,118	7,330	7,807	7,920	7,798	7,271	5.7	-6.8	3.8
ALL OTHER U.S.	2,801	3,489	3,565	3,722	3,738	3,581	3,333	4.2	-6.9	2.5
FOREIGN	2,786	3,629	3,765	4,085	4,182	4,217	3,938	7.2	-6.6	5.1
SELF-SUPPORT	68,442	67,686	69,815	70,654	72,859	75,596	74,547	1.7	-1.4	1.2

1/ DISTRIBUTION BY TYPE OF MAJOR SUPPORT WAS NOT REQUESTED IN 1978.
2/ INCLUDES TRAINEESHIPS; SEPARATE DATA WERE COLLECTED ON FELLOWSHIPS AND TRAINEESHIPS BEGINNING IN 1979.
* LESS THAN 0.05 PERCENT CHANGE
SOURCE: NATIONAL SCIENCE FOUNDATION

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